

THE IMPACT OF SEXUAL IDENTITY DEVELOPMENT ON THE SEXUAL
HEALTH OF YOUTH FORMERLY IN THE FOSTER CARE SYSTEM

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Submitted to the faculty of the University Graduate School
in partial fulfillment of the requirements
for the degree
Doctor of Philosophy
in the School of Social Work,
Indiana University

February 2019

Accepted by the Graduate Faculty of Indiana University, in partial fulfillment of the requirements for the degree of Doctor of Philosophy.

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DEDICATION

This dissertation is dedicated to my paternal grandmother Jeanne Friedman, my husband David Brandon-Friedman, my son Edwin Brandon-Friedman, and all the others who sacrificed so much during the many years I spent reaching this point. It is further dedicated to all the youth who were gracious enough to complete my survey and let us all learn from their hardships and experiences.

ACKNOWLEDGEMENT

David and Edwin, you both have sacrificed so much over the last five plus years as I have worked toward this point that a dedication and acknowledgement hardly seem enough to express my gratitude to you. From picking up and moving so I could start a PhD program to tolerating all the side jobs required to keep us financially solvent and from being there through the highs and lows throughout this process to accepting all the times I said I could not play because I had to finish my “book,” I could not have done this without you. I love you.

Grandma Jeanne, throughout my childhood you always said that you would help proofread my dissertation if I were to write one. I thought you were silly (not an uncommon occurrence), as I had no thoughts of ever pursuing a PhD. When you passed away six years ago I was just starting to consider starting a PhD program and even though you were not here to proofread for me, I have never forgotten how you believed in me when I did not even know my future myself. I love you.

To my parents, Karen Ruiz and Thomas Friedman, I could not have reached this point without the sacrifices both of you made so that I could pursue a world-class undergraduate education. You believed strongly in my potential and were committed to making sure that I had the best education and experiences possible. That education set me on a path that allowed me to reach this point, and I thank you for that. I love you.

To my dissertation committee members, it almost goes without saying that I would not have made it to this point in my career without you and your support. Barb, you have provided guidance and support through this process in so many ways. You remained with me as my ideas and plans shifted, as I sent you countless drafts of

chapters, and as I made many missteps along the way, always helping me to retain perspective and see the possibilities. Your guidance in translating loose ideas I had based on my experiences with youth in the foster care system into an actual research project was instrumental to me reaching this point and I sincerely appreciate the time you dedicated to helping me throughout these five years.

Dennis, I would not be here right now if it were not for you and your support. From the first time I sent you an unsolicited email two weeks into my doctoral program through to now, you have provided unending mentorship and guidance. You challenged me in ways I did not think possible and pushed me to believe in my potential even when I doubted it myself. Your influence can be seen throughout this work as you shaped so much of my thinking around sex, sexuality, and sexual health. As much as I try, I cannot fully express the amount of gratitude I feel toward you and all you have done for me throughout these years.

Beth and Jeffry, I sincerely appreciate your support and guidance as well. Beth, you challenged me to pursue more complex statistics and then helped them all make sense to me. Jeffry, you prodded me to dig deeper into the theories that provided the backbone for this project and provided guidance as I sifted through the vast information available. I thank you both for all that you did for me.

To all my friends, I wish to express my gratitude for your support. The process of completing a PhD can be a lonely one and you helped to keep me grounded and ensured I remembered to venture outside of my office. Killian Kinney, we have spent so much time together during academic conferences, joint projects, teaching opportunities, and theoretical and practical discussions that your influence can be found within these pages.

I appreciate you putting up with my quirks and challenges and keeping me focused on the tasks at hand. To the others who I have not named, I hope you know who you are and how much I appreciate your support.

Finally, I want to express sincere gratitude to Dr. Barbara Pierce, Dr. J. Dennis Fortenberry, and the Section of Adolescent Medicine in the Department of Pediatrics in the Indiana University School of Medicine for your financial support during this research project. I could not have completed this study in this way without the support you graciously provided me. Thank you.

Richard A. Brandon-Friedman

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Youth in the foster care system receive less sexual and reproductive health education, experience higher levels of negative sexual health outcomes, and engage in more risky sexual behaviors than peers not in the foster care system. Counteracting these concerns requires understanding the processes that contribute to these outcomes. A conceptual model interfacing traditional identity development theories and social constructionist theories of social sexualization was developed that posited sociosexual input factors of sexual education and socialization, sexual abuse history, and adverse childhood experiences affect youths' sexual identity development, which then impacts youths' level of sexual health.

Hierarchical linear regression determined the level of impact of sexual socialization on sexual health within a sample of youth formerly in the foster care system ($n = 219$). Whether sexual identity development level mediated the relationship between sexuality-related discussions and sexual health was tested as well as how relationship quality moderates the effects of sexuality-related topic discussions on sexual identity development. Further analysis explored differences between the experiences of youth who identified as sexual minorities and their peers who identified as heterosexual.

Results indicated that gender identity, sexual orientation, adverse childhood experiences, sexual abuse history, and sexuality-related discussions with foster parents and with peers all impact sexual health. All four dimensions of sexual identity development significantly contributed to sexual health outcomes. Mediation occurred

with two of the four sexual identity development dimensions, whereas no moderation effects were indicated. Youth who identified as sexual minorities and youth who identified as heterosexual had significantly different scores on three of four sexual identity development dimensions and youth who identified as sexual minorities had worse sexual health outcomes. Results indicate the importance of the sexual identity development process on sexual health and that youths' sexual orientation identity must be considered when designing interventions to improve sexual health outcomes.

Barbara Pierce, PhD, Chair

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Chapter One: Introduction

According to the U.S. Department of Health and Human Services (2015), in 2014 there were over 415,000 youth in the foster care system (YFC) in the United States, of whom 38%, or more than 157,000, were over the age of 11. According to the Code of Federal Regulations (45 CFR § 1355.20), YFC are defined as youth who are in 24-hour substitute care outside of their home and for whom a Title IV-E agency has placement and care responsibilities. Per this definition, youth who are under the care of a Title IV-E agency but placed within their own home are not considered a part of the foster system, an important distinction that, as will be discussed later, can affect their overall development. Within this inquiry, the entire population of youth involved with the child welfare system will be referred to as youth in the child welfare system (YCWS), whereas those in out-of-home placements, who are the focus of this study, will be referred to as youth in the foster care system (YFC). Youth will be defined as individuals above the age of 12 but under age 24. The upper limit of 24 matches the United Nations' definition of youth (United Nations Department of Economic and Social Affairs, n.d.), while the lower bound is based upon youth sexuality research frameworks that have utilized lower age bounds as low as 11 or 12 (e.g., Gowen & Aue, 2011; Greene, Ennett, & Ringwalt, 1999).

Considered one of America's most vulnerable populations, youth currently and formerly in foster care have disproportionately high rates of mental health and substance abuse concerns, engagement in health risk behaviors, and difficulties navigating interpersonal relationships, along with lower rates of employment, educational attainment, and long-term stable relationships (Bruskas, 2008; Courtney et al., 2011;

Winter, Brandon-Friedman, & Ely, 2016). There have been many recent calls for changes in policies to help address the mental health and substance abuse concerns, educational and economic disadvantages, negative sexual health outcomes, and discrimination against and harassment of youth who identify as sexual and/or gender minorities (YSGMs) among YCWS, but the implementation of new policies has been fragmented and their effectiveness has either not been well established or is often less than desirable (Alavi & Calleja, 2012; Dettlaff, 2014; Escher & Whitney Barnes, 2015; Fostering Transitions: A CWLA/Lambda Legal Joint Initiative, 2012; Robertson, 2013; U.S. Department of Education, 2016; van Dijken, Stams, & de Winter, 2016).

The consequences of the system's failure to address these issues are clearly demonstrated in data from an eight-year longitudinal study of youth formerly in the foster care system that show they are more likely than a general sample of their peers not to have a high school diploma or General Educational Development (GED) certificate, to be chronically unemployed, to have a health condition or disability that inhibits daily activities (including mental health diagnoses), to have been evicted from housing, to have experienced or perpetrated intimate partner violence, to have been diagnosed with an STI, to have children at a young age, or to have been arrested (Courtney et al., 2011). While the accuracy of the adage of a "cycle of abuse" has been rightfully questioned, research has shown youth who have a parent who was previously in the foster care system are at risk for entering the child welfare system (CWS) themselves, especially if born when one of their parents was currently a ward of the foster care system (Geiger & Schelbe, 2014; McCoy & Keen, 2009). Unfortunately, YCWS are 1.45 to 2.5 times more likely to have

been pregnant at some time before age 26 than their peers not in the foster care system (Winter et al., 2016).

This may be related to the fact that even though there is a growing recognition of the need to address concerns related to the health of YCWS, one chronically neglected area is their sexual health. Youth in the child welfare system receive less sexual and reproductive health education; receive less sexual health-responsive healthcare; experience significantly higher amounts of negative sexual health outcomes such as higher rates of unintended pregnancies and sexually transmitted infections; and engage in more risky sexual behaviors, such as early sexual initiation, larger numbers of sexual partners, less use of birth control and protective measures relating to sexually transmitted infections, and higher rates of participation in sexual activities in exchange for goods or services than peers not in the CWS (Winter et al., 2016). Further, many of these youth have experienced adverse childhood experiences such as traumatic losses, neglect, and abuse, all of which are risk factors for negative sexual health outcomes and difficulties in forming coherent identities (Ahrens, Katon, McCarty, Richardson, & Courtney, 2012; Briere & Scott, 2015; Maniglio, 2009; Vaillancourt-Morel et al., 2016).

Within the last decade several prominent national organizations dedicated to sexual health promotion, unplanned pregnancy prevention, sexually transmitted infections/sexually transmitted diseases (STI/STD) and human immunodeficiency virus/acquired immunodeficiency syndrome (HIV/AIDS) prevention, rights for youth in foster care, and/or outcome improvements for youth in the foster care system have released suggested guidelines, model standards, and/or specific policy recommendations for child welfare agencies and professionals on addressing the sexual health needs of

YCWS (e.g., California Child Welfare Council, 2015; Child Welfare League of America, 2012; Escher & Whitney Barnes, 2015; The Center for HIV Law and Policy, 2012; The National Campaign to Prevent Teen and Unplanned Pregnancy, 2016). Yet, a review by Robertson (2013) determined that YFC not only face the traditional barriers to sexual health information common to their peers not involved with the foster care system, but also foster system-based barriers such as unclear state policies, poorly implemented state policies, complicated financial factors, lack of collaboration between professional providers, and limited access to sexuality-related information and services. While causation cannot be determined from the available data, the disproportionate rates of negative sexual health outcomes among YCWS indicate these youth may not be receiving the adequate information or access to services needed to reduce negative sexual health outcomes. Further, while research on positive sexual health outcomes, such as the ability to pursue sexual desires and realize sexual pleasure and sexual satisfaction, with youth is scant, it is reasonable to believe that the youth achieve lower levels of positive sexual health outcomes, as the same factors such as sexual identity development, comfort with sexual expression, and sexual education level are generally at play (Arbeit, Baldi, Rubin, Harris, & Lerner, 2015; Fortenberry, 2013; Harden, 2014).

Another important area of sexual health inquiry relates to YCWS who identify as sexual and gender minorities (SGMs). These youth are disproportionately represented in the CWS and many experience social stigma and harassment due to their sexual and/or gender identities not only in general social interactions, but also from peers, professionals, and foster parents within the CWS (Gallegos et al., 2011; Mallon, 2010; Wilson & Kastanis, 2015; Woronoff, Estrada, & Sommer, 2006). Research has shown

these experiences are associated with incomplete sexual identity development, reduced psychosocial functioning, negative sexual experiences, and negative sexual and global health outcomes, both among SGM YCWS and SGM youth not in the CWS (Clements & Rosenwald, 2008; Higa et al., 2014; Mallon, Aledort, & Ferrera, 2002; Ragg, Patrick, & Ziefert, 2006; Rosario, Schrimshaw, & Hunter, 2011; Rosenwald, 2009). Further, experiences such as these have been shown to contribute to homelessness among youth who identify as SGMs, as many run from the foster care system to escape this harassment (Durso & Gates, 2012; Ray, 2006; Wilson & Kastanis, 2015). Unfortunately, this often then results in increased victimization, psychosocial and sexual health difficulties, and engagement in sexual risk behaviors, exacerbating these youths' psychosocial concerns (Choi, Wilson, Shelton, & Gates, 2015; Keuroghlian, Shtasel, & Bassuk, 2014).

Some population-specific programming for YFC has been developed (e.g., Ahrens, Sugar, Bonnar, & Coatney, 2015; Becker & Barth, 2000; Power Through Choices Project, 2016) in coordination with YFC and professionals who work with this population of youth. Power Through Choices (Power Through Choices Project, 2016), the most comprehensive program, highlights its focus on areas particularly relevant to YFC such as needs for affection, limited support systems, the effects of trauma, limited social capital, and attention to the unique needs of SGMs. The program has demonstrated efficacy when compared to not providing any sexual education (Green, Oman, Lu, & Clements-Nolle, 2017; Oman, Vesely, Green, Clements-Nolle, & Lu, 2018), but the mechanisms through which the education affects outcomes have not been explored nor has the impact of the YFC-specific content. Further, while population-specific

programming can be implemented in some cases, large scale adoption of such programming is often limited by costs, time requirements, and concerns about fidelity.

Thus, while these programs are promising, they are not practical solutions for the large number of YFC. Instead, more information is needed on how the day-to-day interactions YFC already have affect their sexual health outcomes. Further, more attention needs to be directed toward understanding how the youths' experiences both before and during their time in the foster care system affect their sexual development and subsequent sexual health. Once this is known, smaller scale interventions can be developed and policies implemented that can direct the actions of those with whom the youth already interact.

In an effort to advance knowledge in this area, this inquiry was designed to explore how various intrapersonal, historical, and social aspects of the lives of YFC intermingle and impact their sexual health. By incorporating both individual and social factors, a more comprehensive picture of the lives of these youths was developed, leading to a more nuanced understanding of which needs of YFC are not being met. Further, this inquiry explored differences in the experiences, sociosexualization, sexual identity development, and sexual health of YSGM compared to their peers who identified as heterosexual (YH). Once these areas were identified, suggestions for targeted programming and trainings for professionals, foster parents, and the youth themselves could be developed to address the difficulties YSGM face. Altogether through this research, it will be possible to improve the lives of YFC, not only in regards to their sexual health, but in the larger picture, leading to improved psychosocial functioning, safety, and wellbeing.

Conceptual Underpinnings

One way to connect youths' social and environmental situations to sexual health outcomes is through a framework that incorporates the youths' sexual identity. While "sexual identity" is often conflated with "sexual orientation," for the purposes of this inquiry sexual identity will be conceptualized based upon the work of Worthington, Savoy, Dillon, and Vernaglia (2002) as the ways in which individuals understand and enact their sexual needs, sexual values, sexual expectations; individuals' modes of romantic and sexual expression; and their methods of expressing intimacy. Further, it includes the preferred characteristics of sexual partners, sexual communication techniques, types and content of sexual fantasies, ability or inability to achieve sexual satisfaction, and levels of sexual awareness, sexual self-esteem, and sexual health (Worthington et al., 2002). Expanding upon this Worthington et al.'s definition through incorporation of other conceptual work by Hensel and Fortenberry (2013), Muise, Preyde, Maitland, and Milhausen (2010), and the World Health Organization (2006, 2010), within this inquiry individuals' sexual identities are defined as all personal and social aspects of their lives that relate to the domains of sexual orientation, sexual activities, and romantic desires, all of which have direct and indirect effects on their sense of self and ability to engage successfully with others, avoid negative sexual outcomes, reach educational and occupational goals, and enter into and maintain positive social, romantic, and sexual relationships.

Inherent in such a global conceptualization of sexual identity is a recognition that myriad biological, psychological, interpersonal, and sociological factors influence sexuality. Understood this way, the definition provided previously interfaces traditional

identity development theories and social constructionist theories of sociosexualization, each of which emphasize different sexual identity influences. Developmentally, this study is couched within a sematic framework outlined by Worthington, Navarro, Savoy, and Hampton (2008), who differentiated between sexual identity development, a process common to all individuals, and sexual orientation identity development, which, while considered to a degree by individuals who do not identify as sexual minorities, is more relevant to those who identify as sexual minorities. At its core, the study accepts, with some reservations, the tenets of traditional identity development theories, the bulk of which have been built upon Erikson's (1985/1950) epigenetic psychosocial development theory which itself came out of the work of Freud (2000/1915). Within these theories, individuals proceed through a series of "crises" throughout their lives, the successful navigation of which allows for further growth. To progress, individuals must use skills previously learned, which together form the foundation of a healthy psyche that can successfully engage with other individuals socially.

While traditional identity development models recognized the importance of social relationships, there was often a bias toward consideration of internal processes. Within Cass' (1979) and Troiden's (1979) models of sexual orientation identity development, social influences were highlighted as being a means through which individuals could come to understand themselves, but there remained an assumption that the drive toward sexual orientation identity exploration came from within individuals. Worthington et al.'s (2008) model further emphasized social influences, but research using the model often focuses on the effects of sexual identity development rather than the antecedents of that development. Thus, even though there has been at least a tacit

recognition that sexual identity development incorporates social factors, there has not been significant research on how social factors interact with intrapsychic processes within the development of a sexual identity.

To supplement the current, largely intrapsychic literature on sexual identity development, this study incorporates social constructivist theories such as sexual scripting and sexual socialization (Gagnon & Simon, 2005/1973; Spanier, 1977; Wright, 2009b), which emphasize social and environment factors. Similar to Bandura's (1977) social learning theory, these theories suggest that individuals learn to be sexual through a socialization process that "teaches" them what is considered to be sexual, how to act sexually, and what is sexually appropriate or inappropriate. Among the factors that have been explored empirically are intrapersonal factors, demographics, sexual education content and levels, interpersonal interactions, and history of abuse and/or neglect. Given the amount of external control enforced in the lives of YFC and the myriad messages they may receive from various sources in their lives, this study anticipates that the highly-socialized and politicized discourse surrounding sexual identity and sexual orientation identity would heavily influence development of these identities. Within this study, these social influences are termed "sociosexual inputs" and the process of learning through such experiences "sociosexualization."

Statement of the Problem

Previous research has demonstrated increased negative sexual health outcomes and negative sexual experiences among YFC compared to peers not in the foster system (Robertson, 2013; Winter et al., 2016), suggesting there are situational factors that disrupt the foster youths' ability to form positive, coherent sexual identities. While the living

situations of YFS differ from peers who are not in the foster care system, it is unlikely that a youths' living location or family constellation would change physiological sexual development. Instead, it is more likely that YFS are experiencing different types of sociosexualization that are inhibiting their sexual identity development or failing to address their sexual health needs.

Research has indicated connections between social supports and advances in sexual identity development (Brandon-Friedman & Kim, 2016; Pericak, 2012; Sheets & Mohr, 2009); sociosexual inputs and sexual health and sexual self-conception (Ahrens et al., 2012; Brandon-Friedman, Kinney, Pierce, & Fortenberry, 2017; Deptula, Henry, & Schoeny, 2010; Dragowski, Halkitis, Moeller, & Siconolfi, 2013); and youths' development of positive, coherent sexual identities and improved sexual health (Archer & Grey, 2009; Muise et al., 2010; Reid, 2013; Worthington et al., 2008). Yet, the complex interrelationships between sociosexual inputs, sexual identity (including sexual orientation identity) development, and sexual health have not been explored simultaneously. Further, the research on sociosexualization, aspects of sexual identity development, and sexual health has largely focused on general samples of youth, rather than those within a specified social environment such as the foster care system. Thus, while disparities in sexual health have been noted, there is limited empirical information regarding how YFC's experiences impact their sexual health, leaving a large gap in knowledge about how to address this important area of YFC's lives.

Aim of the Study

In order to assist YFC to have positive sexual health, it is essential to understand processes that contribute to positive outcomes. To do so, this study explored the

interrelationships between factors that contribute to sexual identity development and sexual health, allowing for a better understanding of which factors are most significant. By providing an interface between traditional models of sexual identity development and social constructionist models of sexual socialization, it sought to discover the contributions of different aspects of their intrapersonal and interpersonal experiences on their overall sexual identity development and sexual health. Thus, the aim of this study is to understand the ways in which youths' experiences and sexual identities contribute to their sexual health, providing the ability to identify targets for interventions that will improve their overall health and wellbeing.

Research Questions

Building upon the findings of a pilot study (Brandon-Friedman et al., 2017), this study evaluated the interactions between sociosexual inputs, sexual identity development, and sexual health. The inquiry was guided by the following general research questions:

- RQ1: How do sociosexual inputs affect sexual identity development among YFC?
- RQ2: What impact do aspects of YFC's sexual identity development have on their sexual health?
- RQ3: To what degree does sexual identity development mediate the relationship between sociosexual inputs and sexual health among YFC?
- RQ4: Are there differences in the relationship of sociosexual inputs, sexual identity development, and sexual health between YFC who identify as sexual and/or gender minorities and YFC who identify as heterosexual?

Research Hypotheses

Theoretical modeling and empirical research have indicated that myriad historical, interpersonal, and social factors impact sexual identity development. Research also has indicated that levels of sexual identity development predict sexual behaviors and sexual health. Yet, no previous research has combined these findings to evaluate the interrelationships between sociosexualization, sexual identity development, and sexual health. Given the significant negative sexual health outcomes and unique sociosexual experiences of YCWS, they are an ideal population with which to explore these relationships.

Further, the research base regarding YSM with the CWS is largely qualitative or focused on predicting negative sexual health outcomes, leading to limited information on how these youths' oftentimes concerning sociosexualization experiences affect their sexual identity development and their subsequent sexual health. Additionally, by not knowing the differences in the impact of various experiences between YSM and YH, there is insufficient information upon which interventions designed to meet the unique needs of YSM can be developed. Thus, the research hypotheses for this study were:

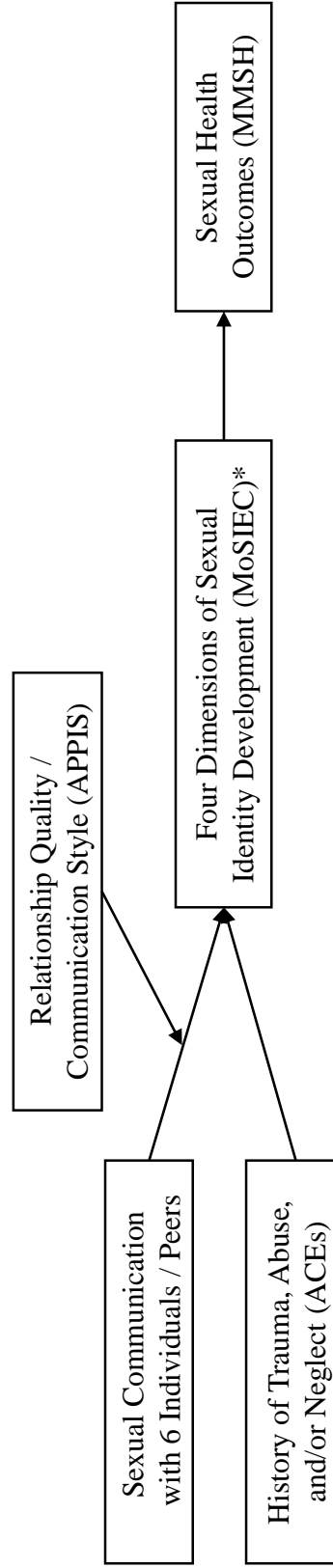
- H1: Youths' experiences of sociosexualization will impact their overall level of sexual health
- H2: Youths' levels of each of the four dimensions of sexual identity development will impact their overall level of sexual health

- H3: Youths' levels of each of the four dimensions of sexual identity development will mediate the relationship between the sociosexual inputs of sexual communication, sexual abuse history, and adverse childhood experiences and their overall level of sexual health
- H4: The quality of the relationships YFC have with those providing the sexual communication will moderate the relationship between the sexual communication from that person and its impact on their sexual identity development
- H5: There will be differences in scores on the ACEs and severity of sexual abuse between YSGM and YH
- H6: There will be differences in the levels of communication with and quality of relationships with the analyzed individuals/groups between YSGM and YH
- H7: There will be differences in scores on the four dimensions of sexual identity development between YSGM and YH
- H8: There will be differences in the impact of each of the four dimensions of sexual identity development on the overall sexual health of YSGM and YH
- H9: There will be differences in the levels of sexual health, sexual health outcomes, and engagement in risky sexual behaviors between YSGM and YH

Model Summary

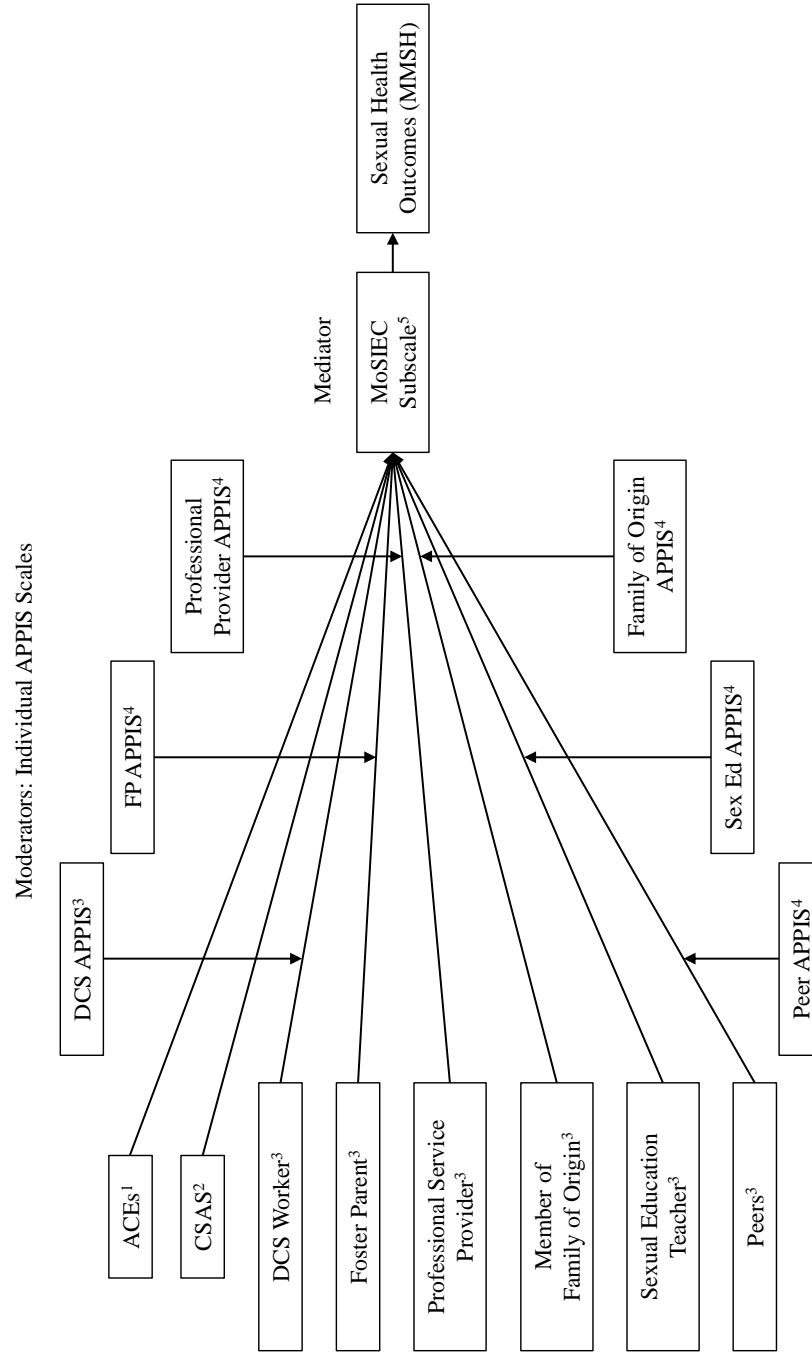
An abbreviated model is provided as Figure 1, whereas the study's full conceptual model is provided in Figure 2. The instruments noted in the model will be discussed in the next section, while the model structure will be discussed in more depth in Chapter three.

Figure 1: Abbreviated Model



*4 MoSIEC subscales – Commitment, Exploration, Synthesis, Sexual Orientation Uncertainty; Model tested four times

Figure 2: Evaluated Model



Controls: Length of time in the foster care system, racial/ethnic identity, gender identity, sexual orientation identity, and current relationship status

¹ACEs – Adverse Childhood Experiences

²CSAS – Childhood Sexual Abuse Scale

³Individuals/Groups for Sexuality-related Discussions

⁴APPIS – Adolescent Professional Provider Interaction Scale (measures strength or relationship and style of communication)

⁵MoSIEC subscales tested separately – Commitment, Exploration, Synthesis/Integration, Sexual Orientation Uncertainty

General Methodology

Sample

Participants were recruited through coordination with social service agencies serving YFS and agencies serving SGMs, targeted e-mailings to various foster care alumni listservs, social media postings by groups that serve YFS, postings to Facebook groups of youth who were formerly in the foster care system, Facebook groups for current foster parents, advertising in a magazine targeted to youth formerly in the foster care system, and through emails to students in schools of social work around the United States. To facilitate recruitment, relationships were established with state and regional gatekeepers of organizations that serve YFS, staff of regional and state chapters of an organization for foster care alumni, social work faculty who previously conducted research with a similar population or who interfaced with this population in their professional capacities, and community agencies that serve SGM youth. Participants were also asked to forward information on the study to others they knew who fit the study criteria. A priori sample size determination via G*Power (Faul, Erdfelder, Buchner, & Lang, 2009) indicated a need for 199 participants.

Inclusion criteria were being age 18 to 24, having been in the foster care system for at least one year between age 12 and 18, and no longer being a ward of their respective state. The lower age of 18 was chosen so that participants could provide consent on their own, whereas 24 was chosen to match the upper age of World Health Organization's definition of youth. The specification that the youth no longer be a ward of their respective state also ensured the youths' ability to self-consent to participate in the research. The requirement of having been in the foster care system for at least one

year during adolescence was included so the youth would have had a lengthy enough experience within the FCS during the key sexual identity development period for system-based influences to have had an impact on their development. It also ensured the youth were in the FCS long enough to have had experiences with a variety of treatment team members, which may not happen during short wardships.

Human Subjects Review

The Institutional Review Board at the author's university reviewed and approved the study protocol. There were no known risks to participation in this study, though it was possible that some individuals would become distressed with the nature of some of the questions. Efforts to mitigate this concern included ensuring that all participants were fully aware of the nature of the questions before beginning the survey, the ability of participants to stop participation at any time, and provision of a list of national resources that participants can contact at any time if they feel distressed. No participants reported any distress, whereas several contacted the study author to say they appreciated the research was seeking to create something positive out of their previous traumatic and/or undesirable experiences.

Procedure

Participants received an email invitation, saw a Facebook posting, or were informed of the study through social service agency staff. The invitation invited them to complete a survey through a secure website at the time and location of their choosing. Participants were informed that they would receive a \$20 e-gift card as compensation for their time completing the survey. Email addresses were collected in a second survey after completion of the primary survey that included the research instruments so there was no

connection between the survey answers and the contact information. E-gift cards were distributed directly to the participants after completion of the survey.

Measures

This study utilized eight instruments and several additional prompts. Each of the study instruments were chosen to measure an aspect of the proposed model. All of the instruments were previously developed, though some changes were required, as will be detailed below. All instruments are included in Appendix A in the form in which they were used in the study.

Sexual Health. In an attempt to systematize the vast variety of conceptualizations of sexual health and create a standardized research instrument, Hensel and Fortenberry (2013) developed a Multidimensional Model of Sexual Health, which included ten aspects of sexual health across four domains, the *emotional domain*, encompassing Relationship Quality; the *physical domain*, comprised of Sexual Satisfaction and Absence of Genital Pain; the *mental/attitudinal domain*, consisting of Fertility Control, Condom Use Efficacy, Sexual Esteem, Sexual Anxiety; and the *social domain*, incorporating Sexual Communication and Sexual Autonomy. In total, the scale contained 35 items, of which 30 are rated on a four-point Likert-type scale from “strongly disagree” to “strongly agree” and five (the Sexual Satisfaction subscale) on a seven-point Likert-type scale from that examined semantic differentials on the items (worthless to valuable; very bad to very good; very unpleasant to very pleasant; very negative to very positive; and very unsatisfying to very satisfying). Initial validation of the instrument using a sample of 242 young women between the ages of 14 and 17 demonstrated adequate internal reliability for each subscale, Relationship Quality (6 items) $\alpha = .92$; Sexual Communication (3

items) $\alpha = .85$; Sexual Satisfaction (5 items) $\alpha = .93$; Sexual Autonomy (3 items) $\alpha = .86$; Absence of Genital Pain (5 items) $\alpha = .83$; Condom Use Efficacy (4 items) $\alpha = .83$; Fertility Control (6 items) $\alpha = .81$; Sexual Self-esteem (3 items) $\alpha = .70$; and Sexual Anxiety (5 items) $\alpha = .85$.

This instrument has not been used in any further research, though a modified version was utilized in Hensel, Nance, and Fortenberry (2016). Within that study, the internal consistency levels were as follows, $\alpha = .94$ for Relationship Quality, $\alpha = .92$ for Sexual Communication, $\alpha = .94$ for Sexual Satisfaction, $\alpha = .83$ for Sexual Autonomy, $\alpha = .80$ for Absence of Genital Pain, $\alpha = .89$ for Condom Use Efficacy (included one additional item not used in the original measure), and $\alpha = .76$ for Fertility Control (three less items than the original measure). This research did not contain similar measures for Sexual Self-esteem or Sexual Anxiety, but added measures of Partner Meets Needs, Sexual Negativity, Closeness to Family, Partner Closeness to Family, Family Communication, and Family Communication about STIs/STDs. For their analysis, the score indicated on each of the items was standardized using z scores and the z scores summed together to create an overall level of sexual health. This was done in order to counteract the differences in scoring on the individual items, i.e. some scored 1-4 and others 1-7.

When using the Multidimensional Model of Sexual Health, it must be recognized that while the internal consistency scores obtained in the pilot and second usage were adequate, both of these samples included only young women (as determined by natal sex, e.g., had a vagina) between the ages of 14 and 17. Further, the analysis did not consider the women's sexual orientation identity. As such, the reliability and validity of the

instrument has not been established for use with individuals over the age of 17, with men, or with transgender individuals, nor has there been a separate examination of its psychometric properties for individuals with different sexual orientation identities. Within this study modifications were made so the questions were applicable to individuals of either biological sex and one prompt was eliminated that was explicitly related to the vagina. Further, an additional item was removed due to a data entry error, leaving a possible raw score range from 35-155. For analysis, the z-score additive procedure from Hensel et al. (2016) was followed.

Sexual Identity Development. Individuals' level of sexual identity development was measure using the Measure of Sexual Identity Exploration and Commitment (MoSIEC). The MoSIEC was developed by Worthington et al. (2008). The published instrument includes a total of 22 items, each of which are rated on a six-point Likert-type scale that ranges from 1 (very uncharacteristic of me) to 6 (very characteristic of me), with higher scores indicating greater agreement with the prompt. The MoSIEC is divided into four independent subscales, *Sexual Identity Commitment* (six items; possible range: 6-36), *Sexual Identity Exploration* (eight items possible range: 8-48), *Sexual Identity Synthesis/Integration* (five items; possible range: 5-30), and *Sexual Orientation Identity Uncertainty* (three items; possible range 3-18). The authors noted that the subscale Sexual Orientation Identity Uncertainty seemed to be reflective of a narrower, independent but important aspect of overall sexual identity development.

Analysis of the initial data indicated high internal consistency reliability for the four subscales, $\alpha = .87$ for Commitment $\alpha = .83$ for Exploration, $\alpha = .76$ for Synthesis/Integration, and $\alpha = .87$ for Sexual Orientation Identity Uncertainty. Further

analysis indicated no significant differences in scores between genders, but there were main effects of sexual orientation identity category on Exploration and Sexual Orientation Identity Uncertainty. Other studies using the MoSIEC have included youth who identify as sexual minorities, college students in general, and individuals between the ages of 18 and 89. Within these studies, internal consistency levels have been acceptable for all four subscales, with α s between .70 and .91 (Borders, Guillén, & Meyer, 2014; Morgan, 2012; Muise et al., 2010; Reid, 2013; Worthington et al., 2008; Worthington & Reynolds, 2009).

Communication Topics with Key Individuals/Groups. Prompts used in research on the discussion of sexual topics between youth and others varies widely. The most common specific topics asked about include contraception or condom use, pregnancy preventions, and HIV/STIs, though many other topics are covered, often focused on specific areas of interest to the researchers (Widman, Choukas-Bradley, Noar, Nesi, & Garrett, 2016). In one study format, researchers utilize yes/no checklists about whether a specific topic was discussed. With this method, analysis generally consists of either summing up the numbers of topics discussed to create a scaled variable of level of communication (i.e., each topic discussed is equal to one additional point on a scaled variable; e.g., Kapungu et al., 2010; Martino, Elliott, Corona, Kanouse, & Schuster, 2008), or using each topic as an independent variable (e.g., Aspy et al., 2007).

Another method of measuring sexual communication goes beyond yes and no prompts to include Likert-type scales, asking participants to rate the degree to which each topic was discussed (e.g., Fisher, 2011) or how strong the messaging was on that topic (e.g., Levin, Ward, & Neilson, 2012). Analysis generally consists of using a summed

scale score to represent overall level of communication (e.g., Charest, Kleinplatz, & Lund, 2016), or using an average score (e.g., Pericak, 2012). Given that this research study was interested in overall communication and the degree to which that communication impacts sexual identity development and sexual health, the more complex method of utilizing Likert-type responses was chosen.

The inventory developed for this study consisted of eleven prompts covering healthy relationships, sexual communication, sexual mechanics, achieving sexual pleasure, avoiding STI/STDs, avoiding unplanned pregnancy, proper use of birth control, sexual violence/sexual victimization, sexual orientation identity, and gender identity. Topics covered in other established scales were reviewed for content and phrasing and prompts chosen based on their prevalence, a review of the most common sexual health outcomes affecting YCWS, and their relationship with aspects of sexual health measured within Hensel and Fortenberry's (2013) Multidimensional Model of Sexual Health. The content validity of these prompts was established through consultation with independent researchers familiar with sexual health among youth and with the needs of YCWS.

The list of topics used is shown in Figure 3. Youth indicated the degree they discussed each of the topics for six individuals/groups – public child welfare worker, foster parent, professional service provider, member of their family of origin, formal sexual education teacher, and peers. The level of discussion was ranked from never to often. Never discussing the topic was scored as a 0 and often a 3. The possible range for each individual/group score was 0-33. If a participant did not interact with a foster parent, professional service provider, member of their family of origin, or formal sexual education teacher, it was possible to choose Not Applicable. All YCWS have a public

child welfare worker and all youth interact with peers regularly, so Not Applicable was not available for these two individuals/groups. For analysis Not Applicable was scored as a zero as it was equivalent to never talking to the individual/group about the topic.

Figure 3: Sexual Health Communication Topics

1. What a healthy relationship looks like
2. How to communicate with a sexual partner
3. The mechanics of sexual intercourse (what to do/how to do it)
4. Avoiding sexual activity / abstinence
5. Achieving sexual pleasure
6. Avoiding sexually transmitted infections/sexually transmitted diseases (STI/STDs)
7. Avoiding unplanned pregnancy
8. Use of birth control
9. Sexual violence / sexual victimization
10. Sexual orientation
11. Gender identity (transgender)

Relationship Quality and Style of Communication. The style of communication between the participants and the identified key individuals was measured using the Adolescent Patient-Provider Interaction Scale (APPIS; Woods et al., 2006), a nine-item scale initially developed as a measure of the style of exchange and balance of power between a patient and medical provider. The intention of the scale's authors was to develop a measure that would allow for analysis of the effectiveness of interventions designed to enhance mutual exchange of information between providers and patients, with the belief that increased communication will result in improved health outcomes. Prompts within the APPIS ask individuals to rate their agreement with statements regarding the level of respect they received, the amount they felt the provider listened to them, whether the provider was judgmental of them, and their comfort with the provider, to name a few. Items are ranked from strongly disagree to strongly agree.

Initial factor analysis of the APPIS scale indicated a two-factor solution, with eight of the prompts contributing to one factor and one to another (Woods et al., 2006). The item that made up the second factor asked who was in control of the visit. Given that in the current study there was anticipated to be different power dynamics depending on the relationship role examined, e.g., it is expected that foster parents will have more power in the relationship, whereas the relationship with peers is likely to be more equal, this question was removed from the scale. As with the sexuality-related discussion scale, the youth completed the APPIS six times, once for each individual/group. The possible range of scores was 8-40 for each individual/group.

Adverse Childhood Experiences questionnaire (ACEs). The ACEs questionnaire (Dube, Felitti, Dong, Giles, & Anda, 2003) was initially developed through a partnership between Kaiser Permanente's Department of Preventative Medicine and the United States Centers for Disease Control. The current format of the ACEs contains 10 prompts designed to measure experiences of trauma, abuse, neglect, and/or other adverse experiences in individuals' lives. It should be noted that within the ACEs questionnaire there is no differentiation regarding the number of times an experience occurred or the severity of the incident. This means that an individual who was fondled sexually against their will one time is scored the same as an individual who has experienced repeated rape over a period of years. Two of the original authors later noted that this is a possible limitation and criticism of the inventory, but that this concern would actually dampen the statistical impact of the individual's scores, thereby understating the predictive effects (Felitti & Anda, 2010). The possible range of scores on the ACEs is from 0-10.

Since the ACEs questionnaire is not a standardized scale, there are no psychometric properties to report. The ACEs questionnaire has been used in numerous cross-sectional and longitudinal research studies with youth and young adults. Scores on the ACEs questionnaire have been shown to be predictive of a host of psychosocial difficulties, including mental health and substance use concerns, physical ailments, risky sexual behaviors, and incidence of STIs and adolescent pregnancy (Felitti & Anda, 2010; Garrido, Weiler, & Taussig, 2017; Wong, Choi, Chan, & Fong, 2017). The ACEs has also been used in a large number of studies conducted with youth either currently or formerly involved with the CWS, with findings generally suggesting that scores on the ACEs questionnaire are predictive of the same psychosocial difficulties noted previously (Conn, Szilagyi, Jee, Blumkin, & Szilagyi, 2015; Villodas et al., 2016) and that the scale can even be used to differentiate outcomes between different groups of YFC (Rebbe, Nurius, Ahrens, & Courtney, 2017).

Sexual Abuse Severity. The history and severity of any childhood sexual abuse experienced was measured using a slightly modified version of the Childhood Sexual Abuse Scale (CSAS; Aalsma, Zimet, Fortenberry, Blythe, & Orr, 2002). The CSAS is a four-item self-report scale originally used in research examining the consistency of reporting of childhood sexual abuse in a sample of adolescents and young adults. In designing the scale, the authors sought to develop a short-form inventory that would assess for a history of childhood sexual abuse (CSA) in a more thorough manner than a single prompt. As with the ACEs, each prompt is worth one point, with a possible range from 0-4. In the original study, at baseline the scale had high internal consistency, $\alpha = .81$, as did it at follow-up seven months later, $\alpha = .84$.

While the CSAS was initially designed only for use in examining CSA prior to age 12, research indicates that many YFS experience sexual abuse after that age. Given that this study is exploring the effects of sexual inputs on sexual identity development through age 18, the prompts were adjusted to ask about CSA prior to age 18. The modified age also brings the CSAS in line with the ACEs, which also includes an upper age limit of 18.

Other Sexual Health-Related Variables. Several additional questions related to sexual activities and sexual health outcomes were asked: whether the youth had ever had an unintended pregnancy/gotten another person pregnant unintentionally, had ever been diagnosed with an STD/STI, and had ever engaged in sexual activities in exchange for money, housing, or other goods.

Structure of the Dissertation

This dissertation will follow the format set by the Indiana University Graduate School in conjunction with the Indiana University School of Social Work. This initial chapter has consisted of an overview of the dissertation topic as well an introduction to overall methodology. The next three chapters will consist of three interrelated research projects. The second chapter is structured as a primer on sexual development for social workers. It compares theories of intrapsychic development such as those by Freud (2000/1915), Erikson (1985/1950), Cass (1979), and Troiden (1988) with theories of sociosexualization such as those by Gagnon and Simon (2005/1973) and Wright (2009b). It then explores an integrated model of sexual development that incorporates aspects of both theoretical frameworks. It further translates these theories to direct social work practice, providing social workers with a ready resource for use in practice. In doing so, it

establishes a theoretical foundation for the entire dissertation and underlines the reasons for the selection of the variables included in the model that is evaluated in chapters three and four.

The third chapter tests the entire model previously shown in Figure 2. It considers the impact of various aspects of sociosexualization on the youths' sexual identity development and the further impact of that sexual identity development on the youths' sexual health. Further analysis examines whether sexual identity development mediates the relationship between sociosexualization and sexual health and whether relationship quality moderates the relationship between sexuality-related discussions and their impact on sexual identity development. After establishing the interrelationship between these variables, it suggests interventions targeted to those areas that most directly impact sexual health.

Chapter four explores differences between YSM and YH. Areas of interest were the amount of adverse childhood experiences, severity of sexual abuse, amount of sexuality-related discussion with the six individuals/groups, relationship quality with the six individuals/groups, scores on the four dimensions of sexual identity development, level of overall sexual health, and incidence of various sexual health outcomes/concerning sexual actions. After elucidating differences in experiences and outcomes between YSM and YH, it provides recommendations for services and interventions that focus on the unique areas of need for YSM in the FCS. The fifth chapter concludes the dissertation with a summary of the preceding chapters and further discussion of how the chapters interrelate. Following the final chapter are the appendices and the references list.

Summary

Youth in the foster care system experience significantly higher rates of negative sexual health outcomes than their peers who are not in the child welfare system, but the reasons for these discrepancies are not clear. This study posits that the unique experiences and social situations of YFC contribute to these outcomes through a process by which their sociosexual experiences predict sexual identity development, which then impacts their sexual health. By enhancing the understanding of how these variables interact, it will be possible to develop more effective programming and trainings, thereby helping improve the outcomes for these youth.

Chapter two provides an overview of various theories of sexual development, providing a literature base for the rest of the dissertation. The third chapter explores the full proposed model, testing the hypothesized relationships and their impact on sexual health. The fourth chapter explores the impact of various aspects of sociosexualization by comparing the experiences and sexual health of YSM and YH. The fifth chapter provides a summary of the entire dissertation. A holistic consideration of this research with enhance understanding of how youths' experiences prior to entering the foster care system, sociosexualization while in the foster care system, level of sexual identity development, and sexual orientation identity impact their overall sexual health.

Chapter Two: Youth Sexual Identity Development Theories: A Primer for Social Workers

In the United States, few topics spur more debate than youth sexual development. Built upon a neo-conservative ideology, the prevailing wisdom in sectors of American society is that children need to be “protected” from discussions of sex and sexuality. When such discussion does occur, it is often within a negative framework focused on avoidance and/or a disease model that teaches youth to fear their bodies and desires (Fortenberry, 2014). Accepting these norms, many schools of social work have resisted efforts to incorporate material on youth sexual orientation, sexual development, sexual identities, or sexual activities into their core curricula (McCave, Shepard, & Winter, 2014).

Yet, sexuality and sexual expression are core aspects of most clients’ lives. Actions that could be perceived as sexual occur from infancy onward. While it is reasonable to question whether the actions are “sexual” as understood by adults, infants’ and toddlers’ genital exploration is well acknowledged (Thigpen, 2012). While these actions may be less notable in middle childhood, youth begin to more actively explore their sexual selfhood in middle to late childhood. Twenty-five percent of young adults report thinking about sex “a lot” as 11 – 12 year-olds (Larsson & Svedin, 2002), whereas youth who identify as sexual minorities report becoming aware of same-sex attractions at the average age of 9.8 years (Grossman, Foss, & D’Augelli, 2014). During adolescence, youths’ exploration of their sexuality increases as romantic and sexual relationships become more socially and personally important (Erikson, 1985/1950; Fortenberry, 2014; Tolman & McClelland, 2011).

Understanding the role of sexuality within youths' lives requires attention to their sexual identity development. While "sexual identity" is often conflated with "sexual orientation," sexual identity is a much broader construct that encompasses all personal and social aspects of individuals' lives relating to the domains of sexual orientation, sexual activities, and romantic desires, all of which have direct and indirect effects on the their sense of self and ability to engage successfully with others, avoid negative sexual outcomes, reach educational and occupational goals, and enter into and maintain positive social, romantic, and sexual relationships. Thus, while sexual orientation is an important part of sexual identity, it is only one piece.

Individuals' early recognition of their sexual identities, expression of sexual desires, and enactment of aspects of their sexual identities may be beneficial to their physical health, mental health, social integration or isolation, healthy development, psychosocial functioning, later sexual satisfaction, and overall sexual health (Harden, 2014; Heywood, Patrick, Smith, & Pitts, 2015). Yet, without adequate psychosocial supports and the ability to advance their sexual knowledge, youth may struggle to attain the intrapsychic sexual maturity necessary to understand these aspects of their lives and make informed decisions. Further, competing sexual messaging can confuse youth as they seek to make sense of their desires within social milieus that range from the sexually explicit to the sexually-oppressive. Encompassing a positive approach to youth sexuality that seeks to enhance youths' sexual development and promote their achievement of full sexual and reproductive rights, this article seeks to better inform social workers about youth sexual development and how to apply this knowledge within their work with youth.

Sexual Identity Development

Two main theoretical perspectives dominate the literature on sexual identity development. One is based in developmental psychology, whereas the other focuses on youth socialization. As youth age they are exposed to progressively more sexualized content in the media and popular culture (Gagnon & Simon, 2005/1973; Wright, 2009b). Rather than highlighting risk, media displays of youth sexuality often suggest sex is pleasurable, desirable, and an expected aspect of youths' lives (Tolman & McClelland, 2011; Wright, 2009b). Media presentations and peer interactions often emphasize sexual activities, leading many youth to believe their peers are engaging in far more sexual activity than is actually occurring and subsequently influencing them to engage in sexual activities themselves thereby perpetuating a repetitive cycle (Miranda-Diaz & Corcoran, 2012). From a socialization perspective, some suggest there has been a social determination that adolescence is a time for sexual exploration and that youth are prodded in this direction by social norms. In other words, as youth age, they are increasingly sexualized through media and social messaging that provides them with a sense they should be "sexual" and with directives on sexual enactment that are then followed.

Conversely, it has been suggested it is not so much that youths' sexual interests have been socially instigated, but rather popular media and the availability of open discussions about sexuality give youth the means through which to understand the changes that are already occurring in their bodies and psyches (Fortenberry, 2014; Tolman & McClelland, 2011). Within this developmentally-based framework, physiological changes in the youths' bodies and a process of intrapsychic sexual

development have heightened the salience of sexual exploration and their pursuit of sexualized media is a manifestation of their drive toward sexual discovery. In other words, physiological/intrapsychic development leads to pursuit of sexual information.

While discussions about sexual development are often framed as a dichotomous clash between biological and/or intrapsychic development and sociosexualization, sexual development has myriad influences and both play a role in how individuals understand themselves as sexual beings. Acknowledging the risk that dividing this discussion into two discrete sections may perpetuate a faulty compartmentalization, this paper will do so to allow for an easier understanding of the complex sexual development process. A final section will discuss sexual behaviors and how these can be understood within each of these frameworks and provide recommendations for incorporating youth sexual development into social work practice.

Normative Models of Sexual Identity Development

Normative models of sexual identity development are grounded in psychoanalytic and ego-identity theories. Freud's (2000/1915) five-stage theory of psychosexual development represented the first integrated, epigenetic theory of normative sexual development and continues to dominate much research on how individuals' sexual identities develop. Framed within an essentialist paradigm, Freud posited that all human actions were expressions of two innate drives, sex and aggression, that form the core of individuals' psyches. To develop healthy personalities, individuals must learn to harness the power of each drive and use it in a prosocial manner. As individuals mature, the sexual aspects of the psyche proceed through a psychosexual development process that activates various erogenous zones, starting with the oral and ending with the phallic.

Through successful navigation of this developmental sequence by meeting the requisite needs in each stage, individuals learn to manage their sexual impulses and desires so they can accomplish their primary biological goal of reproduction.

Building on Freud's work, Erikson (1985/1950) developed an eight-stage epigenetic theory of ego-identity development. Of particular importance to sexual identity development are the fifth and sixth stages, *Identity versus Role Confusion* and *Intimacy versus Isolation*, which occur from early to mid-adolescence and late adolescence to young adulthood, respectively. During Identity versus Role Confusion, individuals experience an "identity crisis" and must resolve the existential crisis of who they will be as independent individuals no longer reliant upon their families for their identities. They seek and form complex social bonds with other youth that help define their sense of selfhood. This is a time of social and personal self-discovery, often including sexual experimentation. The succeeding stage of Intimacy versus Isolation furthers this development as individuals balance a need to sustain an autonomous identity with a desire to form lasting interpersonal relationships. As intimacy develops, individuals incorporate their sexuality into these relationships in a reciprocal manner.

Erikson's idea of individual identity development has been adapted to sub-identities such as sexual identity. Demonstrating the early conflation of sexual identity and sexual orientation identity, early models of "sexual identity" development focused on sexual orientation identity among gay men. Cass (1979) and Troiden (1988) developed the first two models of "homosexual identity development," describing the processes of gay men as they begin to recognize they are homosexual, accept it, and then reveal it to others. While initially developed with gay men, today the models are generally

recognized as representing the sexual orientation identity development process for individuals who identify within any category of sexual minority.

Cass' (1979) model contains six stages: *Identity Confusion*, when individuals begin to connect discussion about homosexuality to themselves; *Identity Comparison*, when individuals accept they might be homosexual and compare their sexual identities with others' sexual identities; *Identity Tolerance*, when individuals begin tolerating they may be homosexual; *Identity Acceptance*, when individuals fully accept their homosexual identity; *Identity Pride*, when individuals proudly present themselves as a homosexual to others; and *Identity Synthesis*, when individuals incorporate their homosexual identity into their global identities.

Troiden's (1988) model is similar to Cass' (1979) model, but with only four stages: *Sensitization*, *Identity Confusion*, *Identity Assumption*, and then *Commitment*. One advancement in Troiden's model was recognition of multiple aspects of sexual identity, the *self*, which is how individuals conceptualize their own sexual identity; the *perceived*, which reflects how others judge individuals' sexual identity; and the *presented*, which entails how individuals present themselves to others. While these aspects may be congruent, they can also vary completely, as some individuals present publicly very differently than they themselves feel or present in private.

McCarn and Fassinger (1996) developed a two-dimensional model of sexual orientation identity development. Individuals were theorized to develop their sexual minority identity through a two-branched process: *Individual Sexual Identity* and *Group Membership Identity*. Initially, individuals are in a phase of non-awareness. Each branch then contains four more phases: *Awareness*, *Exploration*, *Deepening/Commitment*, and

Internalization/Synthesis. Within the Individual Sexual Identity branch, individuals come to recognize themselves as sexual minorities, whereas the Group Membership Identity branch focuses on individuals recognizing others identify in a similar manner and coming to identify as part of that community of others.

Worthington et al. (2002) proposed the first influential model of heterosexual identity development. The model is based on a two-dimensional exploration of sexual identity: the intrapsychic development of the individual and the individual's social development. This conceptualization resulted in a matrix of five "statuses," named as such to reduce the implication that sexual identity development requires a specific temporal progression.

Individuals in Worthington et al.'s (2002) *Unexplored Commitment* status have not explored their sexual identity but are committed to that which has been socially assigned to them. Adhering strictly to social messaging, they are often highly critical of others who differ from themselves, basing judgments of others' sexual actions exclusively on social norms. The authors noted contemporary heteronormativity leads to individuals who identify as sexual and/or gender minorities generally having to leave this status to develop their sexual orientation identity.

Diffusion represents a lack of self-awareness regarding sexual identity exploration despite an active rejection of social prescriptions regarding sexuality. Individuals in this stage are likely to have chaotic sexual experiences throughout their lives in which their sexual desires, thoughts, and actions are not bound by social norms, but nor are they consciously explored. Instead, there is a haphazard expression of aspects of their sexual identity with no specific thought pattern.

Active Exploration characterizes a time when individuals actively explore their sexual identities. While this exploration may be cognitive or behavioral (or both), the defining feature is its intentionality. This exploration must also purposefully go beyond socially prescribed roles or norms in order to represent movement from Unexplored Commitment. Thus, “sexual” actions not consciously directed toward sexual identity exploration are differentiated from those enacted in a targeted manner. Worthington and Mohr (2002) noted this period often coincides with physiological changes such as puberty, but the two are not necessarily temporally symmetrical.

Within the status of *Deepening and Commitment*, individuals actively and consciously work towards committing to a personalized sexual identity. For some, strong societal messages can lead to a strengthened commitment to a concrete sexual identity based on social prescriptions, but there must have been some reflective consideration. Worthington et al. (2002) noted that for individuals who identify as sexual and/or gender minorities (SGMs), movement into this status without active exploration is unlikely as their incongruence with societal norms often necessitates exploration of aspects of sexual identity.

Worthington et al.’s (2002) most advanced stage is *Synthesis*, which represents the culmination of sexual identity development. Having actively explored their sexual identity, individuals feel confident with their sexual identity and its congruence with other aspects of their global identity. Given the degree of exploration required to achieve this status, the authors suggested that many individuals do not reach this stage. Those that do, however, are more likely to be open to others’ sexual identities and the variety of ways in which they can be expressed. Individuals who identify as SGMs may be more

likely to reach this stage due to the complex reflection many undergone when exploring their sexual orientation identities.

Research Support

Normative theories of sexual development are often criticized for a perceived oversimplification of the developmental process as well as their suggestions that individuals who do not follow the stages in the prescribed order or who do not reach the “end” are abnormal. Worthington et al.’s (2002) model was designed to alleviate the latter concerns by classifying people based on current status, not in terms of progression. Yet all theories necessarily simplify human actions to understand them thus, while this line of criticism is well warranted, there must also be acknowledgment of the value of these types of theories.

Research using Worthington, Navarro, Savoy, and Hampton’s (2008) Measure of Sexual Identity Exploration and Commitment has demonstrated that positive sexual identity development influences sexual health. More advanced levels of sexual identity development have been linked with increased sexual self-efficacy, sexual assertiveness, and levels of psychosocial sexual health, as well as improved overall sexual wellbeing (Muisse et al., 2010; Parent, Talley, Schwartz, & Hancock, 2015; Worthington et al., 2008). These increases in sexual health and wellbeing are essential, as both have been shown to affect overall psychosocial health and positive social engagement (Anderson, 2013).

Summary

While sexual identity development has not been linked directly to overall health, a chain of relationships has been established. Advancement in the sexual identity

development process has been connected with overall sexual health, which itself has been correlated with positive psychosocial outcomes. Thus, while caution is necessary when linking findings between studies, empirical investigation has demonstrated the value of normative models of sexual identity development and suggest that addressing this subpart of youths' identities may be beneficial to their overall wellbeing. To understand youth sexual development more fully, however, it is necessary to examine other aspects of youths' lives that impact their sexual development.

Models of Sociosexualization

Most theories that fit under the broad umbrella of sexual socialization are based on the work of Gagnon and Simon (2005/1973). These theories suggest individuals learn to be sexual through a socialization process that “teaches” them what is sexual, how to act sexually, and what is sexually appropriate or inappropriate. Gagnon and Simon’s theory of sexual scripting contains three levels, *cultural scripts*, *interpersonal scripts*, and *intrapsychic scripts*. At the cultural level, social, institutional, and familial entities provide youth with messaging about what behaviors are sexual, when actions or thoughts can be understood as sexual, and what sexuality looks like. Cultural scripts do not direct specific behaviors or thoughts, but rather provide broad templates regarding sexual roles and relationships. On the interpersonal level, individuals interpret general cultural guidelines and apply them to their own social interactions. Intrapsychic scripts then contain the processing of the desires, memories, and fantasies heretofore identified as sexual.

Understood as a whole, an individual receives direction about what is sexual (cultural scripts), applies this personally through the enactment of scripts with others

(interpersonal scripts), and recognizes that doing so entails the management and expression of desires that originate within the individual (intrapsychic scripts) but were only labeled as sexual based on social definitions. Thus, while sexuality may be grounded in biological impetuses, theories of sexual socialization suggest that the expression of that impetus is channeled in specific directions via social learning; biology provides the drive, culture provides the where, when, how, and with whom the drive is expressed.

Later theories of sexual socialization emphasize the highly socialized aspects of the development and understanding of sexual identities. Wright (2014) developed a model, ₃AM, focused on acquisition, activation, and application of sexual scripts. In this model, exposure to new sexual material teaches individuals new scripts or possibilities of which they were previously unaware (*acquisition*), prime scripts which they already knew but may not have actively considered or are newly learned (*activation*), and encourage the usage of these scripts (*application*). This model emphasizes the importance of individuals' social locations for while an infinite amount of scripts are possible, individuals are exposed to a limited repertoire determined largely by their environment and experiences.

Among youth, the most prominent sources of sexual socialization are peers, family members, and the media (Baxter, 2013; Isaacs, 2012; Thigpen, 2012; Wright, 2009b). Through interactions with individuals and media presentations, youth begin to understand what others term as sexual, how to interpret their "sexual" thoughts, and how to enact their sexual impulses individually and with others. Thus youths' sexual identities vary considerably as each is socially constructed within a framework unique to that youth's experiences.

Research Support

Theories of sociosexualization have a significant research base dating back to the original Kinsey studies. If sexual identity development was purely a physiological process, the same types of sexual behaviors and beliefs would be expected across demographic categories. Yet, research has found differences in sexual behaviors and sexual health outcomes based on sex, gender, race/ethnicity, sexual orientation identity, and in how race/ethnicity and sex or gender intersect (Everett, Schnarrs, Rosario, Garofalo, & Mustanski, 2014; Zimmer-Gembeck, O'Sullivan, Mastro, & Hewitt-Stubbs, 2016). Other research has indicated youths' psychosocial health, experiences of trauma and/or neglect, and relationships with adult figures in their lives significantly affect their sexual choices and health outcomes (Cunningham, Martinez, Scott-Sheldon, Carey, & Carey, 2017; DiIorio, Pluhar, & Belcher, 2003; Szanto, Lyons, & Kisiel, 2012), emphasizing the importance of social experiences.

Further support is provided through the examination of sexual interaction patterns among two subpopulations of youth. Despite several prominent calls for programming to address it, youth involved with the child welfare system have disproportionately high levels of engagement in sexual risk behaviors and negative sexual health outcomes (Winter et al., 2016). Examining the social environment of these youth reveals possible factors contributing to this occurrence. These youth have experienced trauma, while many have come from disruptive family systems, had dysfunctional sexual and romantic relationships modeled for them, and lacked access to sexual education; even within the foster care system access to positive sexual supports are often lacking (Aparicio, Pecukonis, & O'Neale, 2015; Winter et al., 2016). As they develop, the youth engage in

the behaviors they have had modeled for them, even if such actions may not be the healthiest (Brandon-Friedman et al., 2017).

Another population of note is youth who engage in same-sex sexual interactions. Formal sexual education is notoriously inattentive to these youths' sexual educational needs, leading many to use pornography as their primary source of sexual education (Arrington-Sanders et al., 2015). Pornography is neither a realistic portrayal of the nuances of sexual interactions nor a viable source of instruction on safe and prosocial methods of sexual engagement and has been shown to lead to unrealistic sexual beliefs, yet these youths' actions often mirror what they see (Owens, Behun, Manning, & Reid, 2012). The lack of prosocial sources of sexual education likely contributes to the high rates of negative sexual health outcomes in this population (Arrington-Sanders et al., 2015). In other words, these youth are using what is available to explore how to enact aspects of their sexual identity within their lives, fulfilling a need that might otherwise go unmet despite the concerns that can be raised about their influences.

Summary

Examined through a lens of sociosexualization, youths' social positions and experiences affect their acquisition of sexual scripts, which scripts are activated, and how they are applied. During social interactions, youth continually reassess and revise their personal scripts, making adjustments based on what they found to be effective, pleasurable, or beneficial, and discarding those that were experienced negatively or which were inconsequential to them. These scripts are then integrated within the other aspects of their sexual and overall identities, and, through this process, the individuals create their unique sexual identities.

Integrative Youth Sexual Development

Integrating normative models of sexual development and models of sociosexualization leads to a sequence in which physiological changes in youths' bodies paired with ego identity development leads youth to seek to understand themselves and their relationships with others in new ways, including physically. Youths' bodies become more sexually developed and sexuality plays a bigger role in their physiology. Encouraged by social norms, youth seek out more intimate interpersonal relationships, and explore their sexuality within these relationships. Those who identify within the heteronormative narrative are able to base their interactions on predominant social norms, whereas those who identify differently or are more sexually experimental go through an additional intra- and interpersonal process during which they further explore their sexual identity. This process entails further sociosexualization as they seek models with which they identify. Even though this growth is initially foregrounded during youthhood, the process continues throughout the lifespan as individuals' sexual physiology changes along with messaging regarding what forms of sexual expression are socially sanctioned.

Application to Social Work Practice

Difficulties arise when individuals fail to recognize the overall significance of the sexual identity development process. Judgments about the propriety or impropriety of sexual actions of others are generally made from viewers' vantage points, rather than exploring the individuals' views. Some people are condemned, even by social workers, for sexual actions without deeper considerations of the nexus of the rules governing those interactions or attempts to problematize such strictures. While some sexual interactions such as rape necessitate universal condemnation, failure to examine the social basis for

sexual condemnation can be detrimental to the lives of those with whom social workers engage (Brandon-Friedman, 2017; McCave et al., 2014).

With their person-in-environment focus, social workers are well situated to explore the sexual development process with the youth with whom they work and assist others with enhancing their understanding of aspects of others' sexual identities. In their interactions with clients, social workers are trained to examine clients' lives on the micro-, mezzo-, and macro-level, as well as consider the interplay between these systems. What follows are a series of ways in which social workers can apply knowledge of sexual development to assist clients.

On a micro-level, social workers can assist both with the intrapsychic development of a sexual identity as well as interpersonal sexual identity development. Many individuals need assistance understanding the interplay of their sexual beliefs, desires, and actions. This may be particularly important for youth who identify as sexual minorities, as many not only cope with adversarial social environments and internalized homonegativity, but also with familial struggles related to acceptance of their sexual orientation. Similarly, youth from conservative religious backgrounds may struggle to balance what they have been taught regarding sex and sexuality with their own desires and what they perceive their peers are doing sexually. On the other hand, youth who have experienced sexual abuse and/or trauma, may have difficulties understanding themselves as self-determining sexual beings and coming to terms with how their traumatic experiences affect both their intrapsychic sexual identity development and interpersonal sexual interactions. In these instances, a working knowledge of the youth sexual identity

process and understanding of how sexual development fits within youths' overall development and health would be beneficial.

Expanding further into the family, social workers can assist family members to understand and come to terms with how the sexual identities or interactions of family members affect them. Research has shown that not only does family culture influence sexual expression, but it also affects how adults interpret and label youths' behaviors (Thigpen, 2012). Families often must address concerns such as when youth identifies as a sexual minority; a youth experiences unintended or early pregnancy; sexual assault; sexual infidelity; or family members having a sexual fetish or desire that others find offensive. In cases such as these, social workers must be knowledgeable of both intrapsychic and sociosexual models of development, as each play a role in how the individuals understand themselves, understand others' sexual messaging and actions, and enact their own sexuality. Each family members' experiences will have varied not only due to their own personality and belief system, but also based on their social exposure to sexual messaging. Navigating the divides between individuals' actions and beliefs and those of their family members will require attention to each of these aspects of their lives.

On a macro-level, social workers attuned to youth sexual development will be able to better advocate for their clients and other youth. The predominant narrative related to youth sexual expression is one of risk and fear, yet there is nothing inherently risky nor anything to fear from youths' healthy sexual expression (Fortenberry, 2014). Challenging the predominant narrative will require social workers to educate others and themselves regarding youth sexual development, and discussing youth sexuality in an informed and positive manner will help to counteract the prevailing social messaging.

Finally, on a personal level, social workers should adhere to recent calls for more integration of sexuality into social work. Social workers' views on sexuality are socially constructed just like others' views. With their focus on social justice and freedom from oppression, though, they are ethically charged with counteracting mainstream social beliefs and actions when those actions serve to oppress or discriminate against individuals, even when it comes to topics related to sexuality (Brandon-Friedman, 2017; McCave et al., 2014). This essential process can only occur through self-reflection and honest appraisal of themselves and their beliefs, both of which begin with education and introspection. Moving forward, schools of social work and social workers themselves need to focus in on this critical area of human development as failure to do so could lead to social workers' unexamined attitudes toward aspects of others' sexual identity hampering their work with those individuals.

In this way, social workers can begin to advance the cause of achieving sexual justice for youth. Sexuality forms a core part of youths' self-concept, especially during adolescence and young adulthood. By shaming youth or not providing them with the information necessary for healthy sexual development, the youths' right to positive sexual selfhood is impeded. Hindering this essential aspect of youths' lives can affect many others areas of their development and overall wellbeing. If they are instead taught to explore this aspect of themselves to the same degree as they do areas such as hobbies, occupation, and other forms of peer relationships, they will be able to fully integrate their sexuality into their sense of self better, which research suggests will benefit all areas of their lives. Assisting in this process is not only good for the youth with whom a social worker may engage, but for youth as a whole.

Chapter Three: The Impact of Sociosexualization and Sexual Identity Formation on the Sexual Health of Youth Formerly in the Foster Care System

Youth in the foster care system (YFC) experience disproportionate rates of unintended pregnancy, repeat early pregnancies, and sexually transmitted infection incidence, as well as increased engagement in transactional sex, earlier onset of partnered sex, and higher numbers of sexual partners (Winter et al., 2016). These youth are often exposed to social and intrapsychic factors associated with negative sexual health outcomes such as trauma, familial discord and violence, elevated levels of mental health and substance use concerns, housing instability, and foreshortened views of the future, and YFC often lack access to sexual health education and have less access to factors associated with positive sexual outcomes such as high-quality relationships with adults, strong relationship role models, and positive sexual messaging (Ahrens et al., 2012; Ahrens, McCarty, Simoni, Dworsky, & Courtney, 2013; Brandon-Friedman et al., 2017; Cabrera, Auslander, & Polgar, 2014; Guilamo-Ramos et al., 2011; Isaacs, 2012; Manlove, Welti, McCoy-Roth, Berger, & Malm, 2011; Mastro & Zimmer-Gembeck, 2015; Stott, 2012; Winter et al., 2016). As their lives bridge the public-private divide, YFC are directly impacted by the outsized public focus on sexual risk and state policies that limit access to information promoting holistic sexual health (Geiger & Schelbe, 2014; Robertson, 2013).

One way to connect youths' social and environmental situations to sexual health is through a framework incorporating youths' sexual identity. While "sexual identity" is often conflated with "sexual orientation," this inquiry uses a more encompassing definition that includes all personal and social aspects of individuals' lives that relate to

the domains of sexual orientation, sexual activities, and romantic desires, all of which have direct and indirect effects on their sense of self and ability to engage successfully with others, avoid negative sexual outcomes, reach educational and occupational goals, and enter into and maintain positive relationships. Inherent in this global conceptualization of sexual identity is a recognition that multiple physiological, psychological, interpersonal, and sociological factors influence sexuality.

While early work on sexual identity development focused on sexual minorities, recent scholarship recognizes that all individuals go through a process of sexual identity development (Dillon, Worthington, & Moradi, 2011; Worthington et al., 2002). The process is generally understood as a series of phases during which individuals become aware of an emerging (but relatively undifferentiated) sexuality that is explored and more fully defined through experimentation and comparison to others and then integrated into their global identity. Development of a coherent, integrated sexual identity is important to psychosocial and sexual functioning, linked to greater sexual health and overall wellbeing among both sexual minority and sexual majority (i.e., heterosexual), though the positive findings have not been universal (Muise et al., 2010; Parent et al., 2015; Pericak, 2012; Worthington et al., 2008).

To date little research has considered the sexual development of YFC. A well-established research literature links the harsh familial and social environments often experienced by YFC – physical and emotional abuse, neglect, parental drug and alcohol use, interpersonal and neighborhood violence – with several elements of adolescent sexual risk behaviors (Abramovich, 2005; Ahrens et al., 2013; Baldwin et al., 2015; Dragowski et al., 2013; Garcia-Moreno, Mitchell, & Wellings, 2012; James,

Montgomery, Leslie, & Zhang, 2009; Satterwhite et al., 2013). Other relevant personal factors are racial/ethnicity minority status, early sexual debut, and sexual orientation and/or gender identity minority status, all of which are more prevalent among YFC (Summers, 2015; van Leeuwen et al., 2006). Other pertinent areas of consideration are how and to what degree topics related to sexuality are discussed with the youth and the youths' relationships with the individuals with whom they are discussing the topics, as both affect sexual health outcomes (Brandon-Friedman et al., 2017; Geiger & Schelbe, 2014; Isaacs, 2012; Pericak, 2012; Rogers, Ha, Stormshak, & Dishion, 2015).

To more fully explore the sexual health of YFC, this study examined the sociosexualization of YFC's sexual identity development. The research questions were:

- RQ1: How do YFC's histories of adverse childhood experiences and their sexuality-related discussions with others impact their sexual health?
- RQ2: What impact do aspects of YFC's sexual identity development have on their sexual health?
- RQ3: To what degree does sexual identity development mediate the relationship between sociosexual inputs and sexual health among YFC?
- RQ4: To what degree do youths' relationships with individuals/groups moderate the impact of their discussions with those individuals/groups on their sexual identity development?

The hypotheses were:

- H1: Individuals' demographics and history of abuse and/or neglect will impact their sexual health

- H2: Individuals' scores on each of the four dimensions of sexual identity development will impact their sexual health
- H3: Youths' levels of each of the four dimensions of sexual identity development will mediate the relationship between the sociosexual inputs of sexual communication, sexual abuse history, and adverse childhood experiences and their overall level of sexual health
- H4: The quality of relationship the individuals have with each of the evaluated individuals/groups will moderate the impact of the levels of sexuality-related discussions on their sexual identity development

Methods

Recruitment

Participants were recruited through outreach to agencies serving foster care alumni, Facebook groups for foster care alumni and/or foster parents, and advertising in foster care-related publications nationwide. Inclusionary criteria were: age 18-24, being in an out-of-home foster care placement for greater than one year between ages 12 and 18, and no longer being under the wardship of a public child welfare agency. Participation required completing an internet-based survey. Participants received a \$20 e-gift card as compensation. The study protocol was approved by the author's university's Institutional Review Board.

Measures

Six measures were included in this analysis. Two of the measures were completed six times as they were intended to assess communication topics and quality of relationships with six key individuals/groups in the youths' lives: State child welfare

worker, foster parents, professional service provider, member of the youth's family of origin, a formal sexual education teacher, and the youth's peers. Key individuals were chosen to represent the most influential figures in youths' lives. Participants could choose Not Applicable if they did not have substantial interactions with an individual in the identified role and were instructed to choose the individual with whom they had the most significant or longest interactions if there were multiple (e.g., if they had several public child welfare workers).

Communication about Sexual Health. Ways to measure communication about sexuality vary widely. Methods include marking a list of topics as discussed or not or rating the depth of communication on a topic using a Likert-type scale. For this study eleven sexuality-related topics were chosen based on a review of published literature, common sexual health outcomes affecting YFC, and discussions with adolescent sexual health experts (see Figure 3, page 21). Participants indicated how often each topic was discussed using a four-point Likert-type scale with the options of Never, Rarely, Occasionally, and Often. They were presented with the eleven topics six times, once for each key individual/group. Amount of overall sexuality-related communication was determined by summing scores for each individual/group, resulting in a possible range from 0 to 33.

Adverse Childhood Experiences. The Adverse Childhood Experiences scale (ACEs; Dube et al., 2003) is the most widely used measure of trauma and neglect experiences. It was designed to capture physical, emotional, and sexual abuse as well as exposure to five types of household dysfunction and consists of ten yes or no questions. Each yes is considered one point, leading to a range of 0-10.

Childhood Sexual Abuse Scale. Due to the significant impact that sexual abuse can have on sexual identity development, the Child Sexual Abuse Scale (CSAS; Aalsma & Fortenberry, 2011) was included to evaluate the severity of any sexual abuse the youth experienced. Use of this scale allowed for further differentiation of the impact of sexual abuse beyond what is demonstrated in the single prompt in the ACEs. The CSAS was used as a composite variable (range 0-4, $\alpha = .96$).

Relationship Quality and Interactions. The quality of the youths' relationships with the individuals/group was measured using a modified version of the Adolescent Patient-Provider Interaction Scale (APPIS; Woods et al., 2006), which consists of eight items that measure the style of communication and type of relationship between a provider and a youth. As with the sexual health communication topics, the APPIS was completed six times, once for each individual/group. Like the communications measure, the APPIS uses a four-point Likert-type scale and had a possible range from 0-32. Reliability was appropriate for all individuals/groups (α range: .90-.95)

Sexual Identity. The Measure of Sexual Identity Exploration and Commitment (MoSIEC; Worthington et al., 2008) was used to measure sexual identity development. The MoSIEC has 22 prompts each measured using a seven-point Likert-type scale from "very uncharacteristic of me" to "very characteristic of me." The scale was designed to assess four dimensions of sexual identity development that were not dependent on identifying as a sexual minority. The dimensions consist of Commitment (6 items; $\alpha = .85$), which represents commitment to a stable sexual identity without having engage in active exploration; Exploration (8 items; $\alpha = .91$), which entails intentional active exploration of aspects of sexual identity; Synthesis/Integration (5 items; $\alpha = .87$), which

is commitment to a stable sexual identity after intentional exploration; and Sexual Orientation Identity Uncertainty (3 items; $\alpha = .72$), which encompasses uncertainty regarding sexual orientation identity. The scale was not designed to be used as a single factor, thus the impact of each of the four dimensions was evaluated independently.

Sexual Health. Sexual health was measured using a modified version of a multidimensional model of sexual health that included ten aspects of sexual health measured across four domains, emotional, physical, mental/attitudinal, and social (Hensel & Fortenberry, 2013). The modified scale contained 35 items, of which 30 were rated on a four-point Likert-type scale from “strongly disagree” to “strongly agree” and five on a seven-point Likert-type scale that examined semantic differentials. As the original scale was designed only for women, three items were modified to encompass the experiences of both males and females and one removed that was sex specific. A further item was removed due to a data entry error. The scale as utilized is provided in Appendix A. Per the original authors’ instructions (D. Hensel, personal communication), the scale was used as a single composite score calculated by converting the raw scores to z -scores for each item and then summing the z scores. Higher scores were indicative of better overall sexual health (possible raw score range 35-155; actual z -score range: -60.38 to 26.48; $\alpha = .92$).

Sample and Data Analysis

Participant demographics are shown in Table 1. In total 227 individuals provided full data, but eight participants’ data were removed due to being multivariate outliers, leaving a sample size of $n = 219$. The evaluated model is shown in Figure 4.

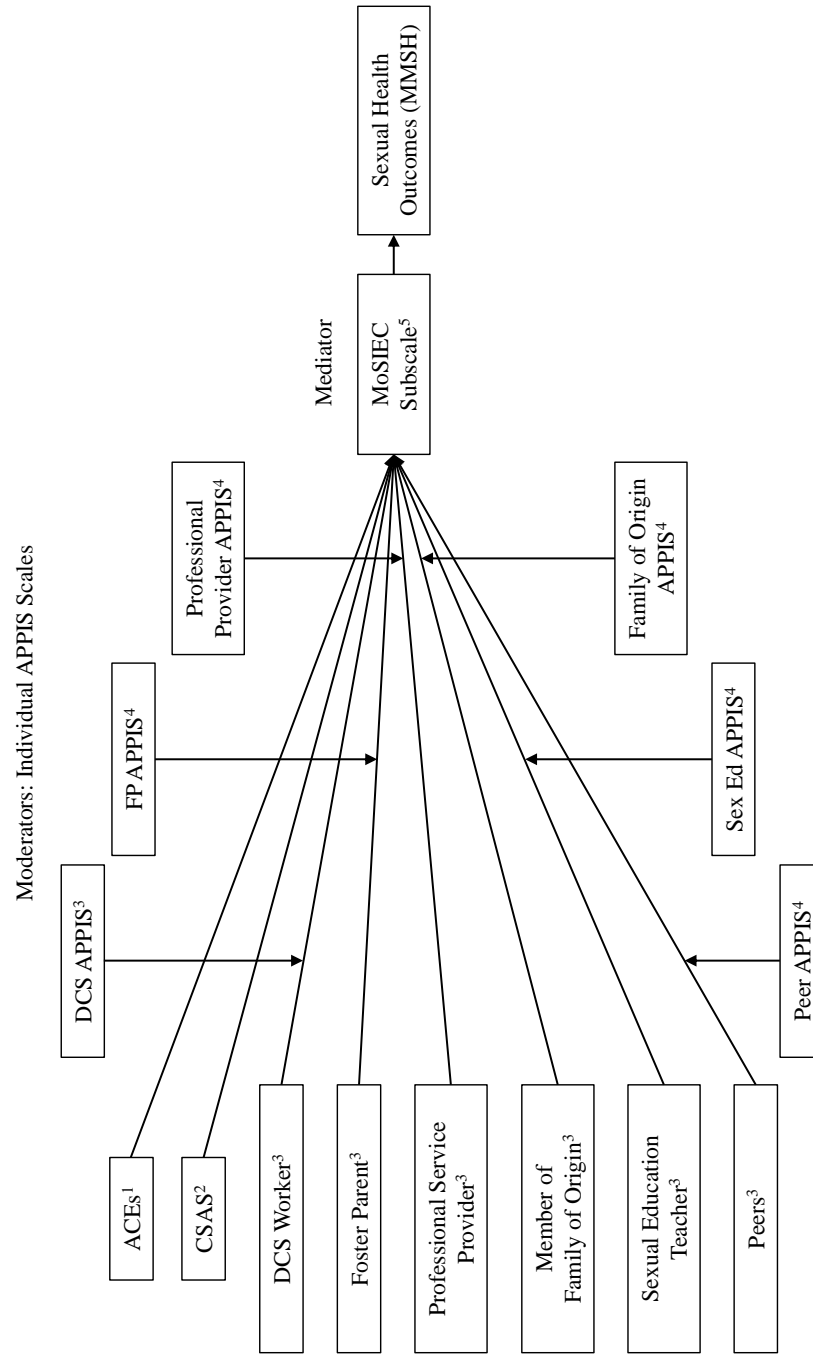
Four hierarchical linear regression analyses were performed, one for each MoSIEC subscale. For all analyses, Model 1 included control variables of time in foster care, race/ethnicity, gender identity, sexual orientation, and relationship status. Model 2 added the ACEs and CSAS, while Model 3 included the degree of sexuality-related discussions with each individual/group. Model 4 differed in the analyses as it evaluated each MoSIEC subscale. Mediation and moderation were tested using the PROCESS v3 macro for SPSS (Hayes, 2018). Post hoc power analysis indicated the sample size was sufficient to achieve 80% power at a two-sided 5% significance level.

Table 1: Demographics of Study Participants^a

		<i>n</i>	%		
Race ^b				Sexual Orientation Identity ^b	
African American / Black		68	31.1	Asexual	
American Indian / Native Alaskan		7	3.2	Bisexual	
Asian		11	5.0	Gay	
Biracial / Mixed		31	14.2	Heterosexual/Straight	
Native Hawaiian or Pacific Islander		3	1.4	Lesbian	
White		116	53.0	Pansexual	
Unlisted Identity		9	4.1	Queer	
Prefer to Not Say		0	0.0	Unlisted Identity	
				Prefer to Not Say	
Ethnicity					
Not Hispanic / Latino		173	79.0	Relationship Status ^b	
Hispanic / Latino		39	17.8	Divorced	
Prefer to Not Say		7	3.2	Married/Partnered	
				Polyamorous Relationship	
Sex Assigned at Birth				Separated	
Female		130	59.4	Single/Never Married	
Male		89	40.6	Widowed	
				Prefer to Not Say	
Gender ^b					
Gender Diverse		0	0.0	Living Situation at Exit from Foster Care	
Female		129	58.9	Adopted	
Male		89	40.6	Aged Out	
Non-Binary/Genderqueer		1	0.5	Returned to Family of Origin	
Trans man/Trans masculine		1	0.5	Group Home	
Trans woman/Trans feminine		0	0.0	Juvenile Justice System	
Unlisted Identity		0	0.0	Other Placement Situation	
Prefer to Not Say		0	0.0	Prefer to Not Say	

^a*n* = 219; ^bTotals may be greater than 219 as participants could select more than one option in several categories

Figure 4: Evaluated Model



Controls: Length of time in the foster care system, racial/ethnic identity, gender identity, sexual orientation identity, and current relationship status

¹ACEs – Adverse Childhood Experiences

²CSAS – Childhood Sexual Abuse Scale

³Individuals/Groups for Sexuality-related Discussions

⁴APPIS – Adolescent Professional Provider Interaction Scale (measures strength or relationship and style of communication)

⁵MoSIEC subscales tested separately – Commitment, Exploration, Synthesis/Integration, Sexual Orientation Uncertainty

Results

Impact of Sexual Identity Development on Sexual Health

All four MoSIEC subscales significantly affected sexual health (Table 4). As models 1, 2, and 3 were the same for all analyses, the results are presented once. The first model was significant ($F(5, 213) = 5.39, p < .001; R^2 = 11.2\%$), with both identifying as female and identifying as a sexual minority predicting lower levels of sexual health (Gender Identity: $\beta = .208, p < .01$; Sexual Orientation: $\beta = -.211, p < .01$). Model 2 was also a significant predictor ($F(2, 211) = 6.815, p < .001; R^2 = 18.4\%; \Delta R^2 = 7.2\%$). In Model 2 gender identity remained a significant predictor ($\beta = .182, p < .01$), but sexual orientation was no longer significant. Both the ACEs and CSAS were significant predictors of lower levels of sexual health ($\beta = -.245, p < .01$; $\beta = -.314, p < .001$, respectively).

When sexuality-related discussions were added into Model 3, it was also significant overall ($F(6, 205) = 5.576, p < .001; R^2 = 26.1\%; \Delta R^2 = 7.7\%$), with gender identity remaining a significant predictor ($\beta = .164, p < .01$). Scores on the ACEs and CSAS also remained significant predictors, $\beta = -.191, p < .01$ and $\beta = -.337, p < .001$, respectively. Among the sexuality-related discussions, only those with foster parents and peers were significant ($\beta = -.142, p < .05$; $\beta = .201, p < .01$, respectively). Contrary to expectations, discussions with foster parents were a negative predictor of sexual health.

Table 2: Results of Hierarchical Multiple Regression for MoSIEC Subscales^a

	Commitment				Exploration				Synthesis				Sexual Identity Uncertainty			
	Model 1	Model 2	Model 3	Model 4	Model 1	Model 2	Model 3	Model 4	Model 1	Model 2	Model 3	Model 4	Model 1	Model 2	Model 3	Model 4
	β	β	β	β	β	β	β	β	β	β	β	β	β	β	β	β
Length of Time in Foster System ^b	-.109	-.055	-.037	.038	-.109	-.055	-.037	-.012	-.109	-.055	-.037	-.008	-.109	-.055	-.037	-.033
Race/Ethnicity ^c	.111	.079	.049	.074	.111	.079	.049	.052	.111	.079	.049	.049	.111	.079	.049	.053
Gender Identity ^d	.208**	.182**	.164**	.101	.208**	.182**	.164**	.163**	.208**	.182**	.164**	.093	.208**	.182**	.164**	.115
Sexual Orientation ^e	-.211**	-.118	-.101	-.052	-.211**	-.118	-.101	-.160*	-.211**	-.118	-.101	-.076	-.211**	-.118	-.101	-.040
Relationship Status ^f	.037	.082	.100	.062	.037	.082	.100	.098	.037	.082	.100	.046	.037	.082	.100	.085
ACEs	-.245**	-.191**	-.150*		-.245**	-.191**	-.159*		-.245**	-.191**	-.157*		-.245**	-.191**	-.178*	
CSAS	-.314***	-.337***	-.208**		-.314***	-.337***	-.297***		-.314***	-.337***	-.284***		-.314***	-.337***	-.322***	
DCS Topics		-.005	.024			-.005	-.037			-.005	.034			-.005	.031	
Foster Parent Topics		-.142*	-.118			-.142*	-.152*			-.142*	-.145*			-.142*	-.138*	
Prof. Service Provider Topics		.041	.056			.041	.040			.041	.042			.041	.042	
Family of Origin Topics		-.005	.094			-.005	-.005			-.005	.079			-.005	.019	
Formal Sexual Education Topics		.127	.107			.127	.084			.127	.094			.127	.129	
Peer Topics		.201**	.068			.201**	.192**			.201**	.124			.201**	.137*	
MoSIEC Subscale			.428***				.169*				.350***				-.235***	
<i>F</i>	5.390***	6.815***	5.576***	8.862***	5.390***	6.815***	5.576***	5.711***	5.390***	6.815***	5.576***	8.051***	5.390***	6.815***	5.576***	6.383***
<i>R</i> ²	.112	.184	.261	.378	.112	.184	.261	.282	.112	.184	.261	.356	.112	.184	.261	.305
ΔR^2	.112***	.072***	.077***	.117***	.112***	.072***	.077***	.020*	.112***	.072***	.077***	.095***	.112***	.072***	.077***	.043***

Notes: ^a*n* = 219; ^bin years; ^cReference Group: White; ^dReference Group: Female; ^eReference Group: Heterosexual/Straight; ^fReference Group: Single; * *p* < .05; ** *p* < .01; *** *p* < .001

MoSIEC Sexual Identity Commitment. When the MoSIEC Sexual Identity Commitment subscale was added, the model was significant ($F(1, 204) = 8.862, p < .001$; $R^2 = 37.8\%$; $\Delta R^2 = 11.7\%$; Table 2), but gender identity was no longer a significant predictor ($\beta = .101, p > .05$). The ACEs and CSAS remained significant predictors, though their impact reduced ($\beta = -.150, p < .05$; $\beta = -.208, p < .01$, respectively). The Sexual Identity Commitment subscale was the strongest predictor of sexual health of the MoSIEC subscales, $\beta = .428, p < .001$.

MoSIEC Sexual Identity Exploration. Model four was significant ($F(1, 204) = 5.711, p < .001$; $R^2 = 23.2\%$; $\Delta R^2 = 2.0\%$; Table 2). For Exploration gender identity remained a significant predictor ($\beta = .163, p < .01$), while sexual orientation became significant again ($\beta = -.160, p < .05$). Both the ACEs ($\beta = -.159, p < .05$) and CSAS ($\beta = -.297, p < .001$) were significant predictors, while discussions with foster parents and peers remained significant ($\beta = -.152, p < .05$; $\beta = .192, p < .01$, respectively). The subscale was a significant positive predictor of sexual health, $\beta = .169, p < .05$, but was the weakest predictor of the four subscales.

MoSIEC Sexual Identity Synthesis. The fourth model was significant ($F(1, 204) = 8.051, p < .001$; $R^2 = 35.6\%$; $\Delta R^2 = 9.5\%$; Table 2), but only the ACEs ($\beta = -.157, p < .05$), the CSAS ($\beta = -.284, p < .001$), and discussions with peers remained significant ($\beta = .145, p < .05$). The MoSIEC subscale was also a significant predictor, $\beta = .350, p < .001$, ranking as the second most impactful of the MoSIEC subscales.

MoSIEC Sexual Orientation Identity Uncertainty. Model four was significant ($F(1, 204) = 6.383, p < .001$; $R^2 = 30.5\%$; $\Delta R^2 = 4.3\%$; Table 2). Both the ACEs ($\beta = -.178, p < .05$) and CSAS ($\beta = -.322, p < .001$) remained significant, as did discussions

with foster parents ($\beta = -.138, p < .05$) and peers ($\beta = .137, p < .05$). This subscale was unique in its negative relationship with sexual health, $\beta = -.235, p < .001$, with more uncertainty predicting lower levels of sexual health.

Mediation. Mediation was tested by computing bias-corrected (BC) bootstrapped 95% confidence intervals (CI) using 5,000 resamples of the data. Significant indirect effects varied based on MoSIEC subscale considered. Sexual Identity Commitment mediated the relationship between sexuality-related discussions with peers and overall level of sexual health ($b = .327$, BC 95% CI [.160, .510]) and between sexuality-related discussions with a member of the youth's family of origin and overall level of sexual health ($b = -.256$, BC 95% CI [-.443, -.100]). Sexual Identity Exploration mediated the relationship between sexuality-related discussions with a public child welfare worker and overall level of sexual health ($b = .081$, BC 95% CI [.003, .187]), and between sexuality-related discussion with a formal sexual education teacher and overall level of sexual health ($b = .059$, BC 95% CI [.003, .142]). There were also significant indirect effects between sexuality-related discussions with a member of the youth's family of origin ($b = -.216$, BC 95% CI [-.411, -.059]) and between peers ($b = .188$, BC 95% CI [.043, .398]) and overall level of sexual health via Sexual Identity Synthesis/Integration. Sexual Orientation Identity Uncertainty mediated the relationship between sexuality-related discussions with peers and overall level of sexual health ($b = .156$, BC 95% CI [.033, .295]).

In terms of adverse childhood experiences and severity of sexual abuse, there were three significant indirect effects. Sexual Identity Commitment mediated the relationship between severity of sexual abuse and overall level of sexual health ($b = -$

1.252, BC 95% CI [-2.183, -.502]). There were also significant indirect effects between scores on the ACEs ($b = -.228$, BC 95% CI [-.540, -.002]) and severity of sexual abuse ($b = -.390$, BC 95% CI [-.815, -.032]) and overall level of sexual health via Sexual Identity Exploration.

Moderation. Interaction effects between sexuality-related discussions with all six individuals/groups and the quality of the relationship with each individual/group were examined to explore whether the quality of the youths' relationships significantly moderated the impact of their sexuality-related discussions with those individuals/groups on the youth's sexual identity. No significant interaction effects were detected between any variables that had significant impacts on sexual identity development.

Discussion

This study emphasizes the importance of the sexual identity development process to sexual health. Unique to this study is the extension of these findings to youth formerly in the CWS. The four dimensions of the MoSIEC (Worthington et al., 2008) each impacted sexual health, with Sexual Identity Commitment, Sexual Identity Exploration, and Sexual Identity Synthesis positively affecting sexual health and Sexual Orientation Identity Uncertainty negatively affecting it. Findings indicate previous adverse childhood experiences, sexual abuse severity, identifying as female, and identifying as a sexual minority impact sexual health negatively, whereas sexuality-related conversations with peers have a positive impact on sexual health. Contrary to expectations, sexuality-related conversations with foster parents negatively affected sexual health.

Sexuality plays a key role in youths' lives as they progress to adulthood, emphasizing the importance of the sexual identity development process (Fortenberry,

2013; Worthington et al., 2008). Adult and peer interactions affect this essential process, as do previous psychosocial experiences. Youth in the CWS have all experienced trauma and loss, both of which have been linked with disruptions in the sexual identity development process. Given that the two more solidified dimensions of sexual identity, Sexual Identity Commitment and Sexual Identity Synthesis/Integration had the strongest positive impact on the youths' sexual health, determining ways to further enhance youths' sexual identity development would likely lead to improved sexual health.

The positive impact of Sexual Identity Exploration on sexual health is congruent with previous research (Reid, 2013). While exploration may involve risk taking, the increased attention to sexual actions and consciousness directed toward sexual decision-making during this time may increase youths' engagement in protective sexual behaviors. Further, sexual health includes areas such as sexual self-esteem and sexual anxiety, the former of which could be enhanced and the latter diminished through positive sexual interactions.

While Sexual Identity Exploration is a positive occurrence, feelings of uncertainty regarding sexual orientation identity had negative effects. Sexual orientation identity questioning is a complicated process involving myriad interacting intrapsychic and psychosocial factors, many of which may contain negative messaging toward those exploring sexual minority identities. This social negativity could affect the sexual activities of the youth during this period of uncertainty. Further, sexual communication, sexual autonomy, sexual esteem, sexual anxiety, and sexual satisfaction, all of which are included in the broad definition of sexual health used, are likely affected if an individual

is in a relationship with an individual whose gender identity does not match that to which the individual is attracted.

One area often linked to improving sexual health and sexual identity development is education, but results indicate discussion about sexuality-related topics may not have as strong of a positive effect on the sexual health of youth formerly in the CWS as commonly suggested. There was no impact on youths' overall level of sexual health based on their sexuality-related conversations with public child welfare workers, professional service providers, members of their families of origin, nor formal sexual education teachers. This challenges the belief that sexual education is a key component in sexual health promotion (e.g., Geiger & Schelbe, 2014; Robertson, 2013; Winter et al., 2016), complimenting some previous research that also found no effect (Wight & Fullerton, 2013).

That the two more solidified dimensions of sexual identity development, Commitment and Synthesis/Integration mediated the impact of sexuality-related discussions with a member of the youth's family of origin and sexual health is noteworthy, particularly since those discussions negatively impacted aspects of sexual identity development that were positively related to sexual health. The reason for this is unclear, though it could be related to how the family members discuss sexuality, the topics upon which they focus, or a complex interaction between the youths' previous experiences with those family members and their current sexual development process that leads to those discussions causing the youth further confusion or lack of clarity regarding their sexual identities.

The mediation of the impact of sexuality-related discussions with foster parents and public child welfare workers on sexual health by Sexual Identity Exploration deserves attention as well. Exploration is considered a positive aspect of sexual identity development, so the negative impact of foster parent discussions is concerning. That public child welfare workers' positive influence is mediated by this exploration suggests their discussions could be helping the youth to engage in this important process. The basis for this impact deserves considerable further attention.

Previous research has suggested differences in the quality of the relationship between youth and adults contribute to contradictory findings regarding the impact of sexuality-related discussions on sexual actions and sexual health (Brandon-Friedman et al., 2017; Isaacs, 2012; Pericak, 2012). Yet relationship quality did not moderate the effects of sexuality-related discussions on sexual identity development for the youth in this study. One possible reason is the youth reported generally low amounts of sexuality-related discussions. Lack of variation in the levels of topic discussions could have suppressed the impact of the discussions themselves as well as how relationship quality affected that relationship.

That sexuality-related discussions with foster parents had a negative impact on sexual health is concerning. As this analysis only explored overall levels of sexuality-related discussion, it was not possible to examine the topics upon which foster parents focused. Abstinence-only and/or predominantly risk-based sexuality-related discussions can be ineffective or counter-productive (Ott & Santelli, 2007), which could explain this finding. Further, while the overall relationships with foster parents did not moderate the effect of their discussions and sexual identity development, the analysis did not explicitly

examine style of communication during sexuality-related discussions. Research suggests lecturing regarding sexual health outcomes can increase sexual risk taking (Rogers et al., 2015), providing a possible explanation for this finding if that were how the topics were addressed, which some research has suggested occurs (Brandon-Friedman et al., 2017).

Trauma experiences also need attention. Trauma often impairs cognitive and social development (Briere & Scott, 2015), which may be negatively influencing the youths' sexual health. Compared to similarly-aged youth in other studies (e.g., Borders et al., 2014; Reid, 2013), the youth in this study scored lower on Sexual Identity Commitment and higher on Sexual Identity Exploration and Sexual Orientation Identity Uncertainty, suggesting their sexual identity development may be delayed. There are many mechanisms through which the experience of sexual abuse may translate to reduced sexual health such as negative cognitive associations, trauma responses, shame, and reduced body image and self-esteem, as well as using sexual activity to cope with pain (Senn, Braksmajer, Hutchins, & Carey, 2017; Taylor, Goshe, Marquez, Safren, & O'Cleirigh, 2018). Few studies, however, have explored connections between treatment for sexual abuse and improvements in sexual health. Further, little research has been done on how experiences of other forms of abuse and/or neglect may affect sexual health or how therapeutic treatment can mitigate this risk. Given the strong impact of all forms of abuse and/or neglect on sexual health, this is an essential area for investigation.

Finally, the impact of sexuality-related discussions with peers on sexual health warrants further exploration. Peers likely influence youths' sexual beliefs, attitudes, and actions more than any other individuals with whom youth interact (Suleiman & Deardorff, 2015). That discussions with peers was mediated by three of the four sexual

identity subscales further emphasizes peers' importance within the sexual identity development process. It appears peers' influence on sexual health may be primarily through their contribution to sexual identity development. Better understanding how peers influence each other's sexual identity development and sexual decisions will allow for targeted interventions, not only with peers but with adults if the same mechanism can be translated into cross-generational relationships.

Limitations

Participants were recruited primarily through services agencies and social media focused on youth formerly in the foster care system. Many youth who exit the foster care system do not engage with these types of agencies nor do they join social groups tied to their identity as having been in the foster care system and these youth were less likely to be reached through the recruitment methods used. Second, the study materials emphasized the study's focus on aspects of sexual health, history of abuse and neglect, and sexual identity development. These are intimate areas many youth may be uncomfortable sharing, limiting participation to those comfortable enough with these topics to answer questions about them. Third, this study was cross-sectional, whereas sexual identity development is a temporal process. Longitudinal research designs that can explore the sexual identity development process as it unfolds might identify different areas of need.

Conclusion

This study examined how aspects of youths' sociosexualization impacted their sexual identity development and the ways in which that identity development affected their levels of sexual health. A history of adverse childhood experiences, a history of

sexual abuse, sexuality-related discussion with foster parents, and sexual orientation identity uncertainty negatively impacted sexual health, whereas sexuality-related discussions with peers, sexual identity commitment, sexual identity exploration, and sexual identity synthesis/integration positively affected sexual health. These results suggest that YFC's histories of abuse and/or neglect, their interactions with foster parents and peers, and their sexual identity development are all areas that should be focused upon when seeking to improve their overall sexual health.

Chapter Four: Sexual Health, Sexual Identity Development, and Sexuality-related Discussions: Comparisons Between Sexual Minority and Heterosexual Youth Formerly in the Child Welfare System

Youth involved with the child welfare system (CWS) disproportionately identify as sexual minorities and many experience social stigma and harassment due to their sexual orientation not only in every day social interactions, but also from peers, professionals, and foster parents within CWS (McCormick, Schmidt, & Terrazas, 2016).

While youth who identify as sexual minorities (YSMs) enter the CWS for various reasons, abuse, neglect, and conflict with family members directly related to the youths' sexual orientation are common factors (Irvine & Canfield, 2016; Mallon, 2011).

Interviews with youth and youth workers have indicated that when YSM are mistreated in the CWS, many foster parents, families of origin, child welfare professionals blame the youth, suggesting their sexual orientation was a valid contributing factor (Mallon, 2011; McCormick et al., 2016; Woronoff et al., 2006). Victim-blaming such as this not only allows the harassment to continue but perpetuates messaging to YSM that the CWS is not a safe environment for them.

Research has shown that sexuality-related harassment and discrimination are associated with incomplete sexual identity development, reduced psychosocial functioning, negative sexual experiences, and negative sexual and global health outcomes (Clements & Rosenwald, 2008; Higa et al., 2014; Rosario et al., 2011). Further, experiences such as these have been shown to contribute to homelessness among YSMs, as many run from the foster care system (FCS) to escape harassment (McCormick et al., 2016). Seeking to explore the impact of sexual orientation identity on the experiences of

YSM in the FCS, this study compared the sexuality-related discussions, relationships with adults, sexual identity development, and sexual health between YSM and youth who identify as heterosexual (YH) who were formerly in the FCS.

Literature Review

Sexual health not only consists of the absence of sexual dysfunction, disease, or violence, but also the presence of positive aspects of sexuality such as achievement of sexual pleasure and satisfaction and positive sexual esteem (Hensel & Fortenberry, 2013). Individuals' early recognition of their burgeoning sexual identities, youthful expression of sexual desires, and enactment of aspects of their sexual identities are beneficial to their physical health, mental health, social integration, psychosocial functioning, later sexual satisfaction, and overall sexual health among both YH and YSM (Heywood et al., 2015; Higa et al., 2014; Zimmer-Gembeck et al., 2016). Further, general sexual health has been linked to reducing other health risk behaviors and improving overall health outcomes (Hensel & Fortenberry, 2013; Hensel et al., 2016), suggesting the importance of addressing this vital area of youth development. Yet, the bulk of research done on youth sexuality has focused on relationships between sexual expression and negative sexual outcomes leading some adolescent sexuality scholars (e.g., Fortenberry, 2014; Harden, 2014) to suggest that youth have been taught to fear their bodies and the potential of their bodies for sexual expression. This is especially true for YSM within the FCS as they are subjected to heightened surveillance of their sexual actions (Child Development and Successful Youth Transition Committee, 2015).

Health outcome and risk data indicate that YSM have much worse sexual health outcomes than YH and have higher rates of negative sexual health outcomes such as

sexually transmitted infection (STI) incidence and sexual victimization (Everett et al., 2014; Kann et al., 2016). Among adults, research indicates that those who identify as sexual minorities have lower levels of sexual satisfaction than those who identify as heterosexual (Flynn, Lin, & Weinfurt, 2017). While suggested reasons vary, most focus on the differences in the psychosocial environments and the sexual milieu YSM and YH experience (Dragowski et al., 2013; Katz-Wise & Hyde, 2012).

Sexual education positively affects sexual health outcomes but despite several literature reviews and professional commentaries stressing the importance of sexual education for youth involved with the CWS (e.g., Robertson, 2013; Winter et al., 2016), many of these youth fail to receive comprehensive sexual education. Perhaps consequently, youth involved with the CWS experience significantly higher amounts of negative sexual health outcomes and engage in more risky sexual behaviors than peers not involved with CWS (Winter et al., 2016). While research on positive aspects of sexual health such as the ability to pursue sexual desires and realize sexual pleasure and satisfaction with youth is scant, it is reasonable to believe that youth also achieve lower levels of positive aspects of sexual health, as the same psychosocial factors contribute to positive and negative outcomes (Harden, 2014).

When sexual education is provided, it is often heavily heteronormative and inattentive to the needs of YSM, leaving many YSM feeling excluded and less knowledgeable regarding sexual health practices (Charest et al., 2016; Gowen & Winges-Yanez, 2014). As a result, many YSM rely on the internet, media, and pornography to learn about sexual interactions (Arrington-Sanders et al., 2015; Mitchell, Ybarra, Korchmaros, & Kosciw, 2014). Further, professionals within the CWS and members of

foster families are often uninformed about matters related to sexual minorities or may be uncomfortable discussing sexual orientation and same-sex sexual interactions leaving YSM without access to important sources of sexual health information (Clements & Rosenwald, 2008; McCormick et al., 2016; Rosenwald, 2009).

The presence of strong and trusting interpersonal relationships between youth and adults positively impacts sexual health outcomes (Guilamo-Ramos et al., 2011; Isaacs, 2012). Increases in communication and open communication between parents and youth also are related to reductions in the amount of sexual activities and risk behaviors and to increasing sexual communication, self-esteem, and self-efficacy (Widman et al., 2016). Additionally, youth also have reported that in order for them to engage with sexual education material, they need to trust the provider of the information (Brandon-Friedman et al., 2017; Kimmel et al., 2013), further emphasizing the importance of adult-youth relationships.

Recognizing this, health professionals and youth service providers acknowledge that a primary task when providing sexual education to youth is to develop authentic relationships with the youth and sexuality education trainings for parents are increasingly focusing on relationship development (Garcia, Ptak, Stelzer, Harwood, & Brady, 2014; Wight & Fullerton, 2013). Yet, many youth formerly in the FCS report they felt disconnected from adults and lacking in positive role models while they were in the system, which consequently reduced their access to important sexual health information (Brandon-Friedman et al., 2017; Courtney et al., 2011). Further, YSM in the CWS often have strained relationships with adults (McCormick et al., 2016), possibly limiting the impact of any sexuality-related conversations that do occur.

Sexual Identity Development

Within early research, “sexual identity” often referred to what Worthington et al. (2002) later termed *Sexual Orientation Identity*. The two most prominent models of sexual orientation identity development were by Cass (1979) and Troiden (1988) and described the processes by which individuals begin to recognize they are homosexual, accept it, reveal it to others, and then integrate it into their global identity. McCarn and Fassinger (1996) later developed a two-dimensional model of sexual orientation identity development in which individuals were theorized to develop their sexual minority identity through a two-branched process, *Individual Sexual Identity* and *Group Membership Identity*.

Recognizing that YH also experience a sexual identity development process, Worthington et al. (2002) developed a model of heterosexual identity development that maintained a two-dimensional exploration of intrapsychic and social aspects of sexual identity. Worthington et al. (2008) operationalized Worthington et al.’s (2002) model and expanded it to include individuals with all sexual orientation identities through creation of the Measure of Sexual Identity Exploration and Commitment (MoSIEC), which explores four interrelated but independent dimensions of sexual identity development: *Commitment, Synthesis/Integration, Exploration, Sexual Orientation Identity Uncertainty*. As a multi-dimensional model, individuals are rated on each of the four dimensions separately.

Research using the MoSIEC has largely focused on the relationship between the sexual identity dimensions and sexual health outcomes. Findings suggest that increased levels of Sexual Identity Commitment are predictive of greater sexual health and positive

sexual experiences among both YH and YSM (Bond & Figueroa-Caballero, 2016; Muise et al., 2010; Worthington et al., 2008). Elevated levels of Sexual Identity Exploration have been positively correlated with sexual self-efficacy, sexual self-reflection, sexual motivation, sexual assertiveness, less usage of intoxicating substances before engaging in sexual activities, a more organized sexual schema, and improved sexual health (Muise et al., 2010; Parent et al., 2015; Reid, 2013; Worthington et al., 2008). Worthington et al. and Muise et al. (2010) offered opposing views of the impact of Sexual Identity Synthesis/Integration and Sexual Orientation Identity Uncertainty as Worthington et al. found connections between each of the two subscales and aspects of sexual health, whereas Muise et al. found no significant relationships between either scale and sexual health, suggesting that the interplay between these aspects of identity development and sexual health may not be consistent.

The importance of understanding how youths' sexual orientations affects the rest of their sexual identities cannot be overstated as sexual orientation identity affects how others' view and interact with them. In fact, sexual orientation maintains such a prominent place within youths' lives it not only affects their internal sense of self, but many of their other social identities and actions (Reback & Larkins, 2010; Russell, Clarke, & Clary, 2009). More complete sexual orientation identity integration has been linked with better psychosocial outcomes and positive sexual health (Rosario et al., 2011). Further, Worthington et al. (2008) found differences in the impact of the four MoSIEC dimensions between individuals who identified as sexual minorities and those who identified as heterosexual, indicating this is a critical area for inquiry.

Research Questions and Hypotheses

Existent research does not fully explore differences between the experiences of YSM and YH within in the CWS, nor is there direct attention to how sexual orientation identity affects sexual health. As such, the research questions that guided this inquiry were:

- RQ1: What are the differences in how often sexuality-related topics are discussed between YSM and YH in the CWS?
- RQ2: How do the adult-youth interaction experiences within the CWS differ between YSM and YH?
- RQ3: What are the differences in overall sexual health between YSM and YH in the FCS?
- RQ4: What are the differences in negative sexual health outcomes and engagement in transactional sex between YSM and YH in the FCS?
- RQ5: What are the differences in sexual identity formation between YSM and YH in the FCS?

The hypotheses were:

- H1: YSM discuss fewer sexuality-related topics with the evaluated individuals/groups than YH
- H2: YH have stronger relationships with adults within the FCS than YSM
- H3: YSM have lower levels of sexual health, have greater incidence of STIs/STDs, and have greater incidence of engaging in transactional sex than YH

- H4: YSM have higher on levels of Sexual Identity Exploration and Sexual Orientation Identity Uncertainty than YH
- H5: YSM have lower levels of Sexual Identity Commitment and Sexual Identity Synthesis/Integration than YH
- H6: Scores on the four MoSIEC subscales will have different levels of impact on overall sexual health between YSM and YH

Method

Recruitment

The data were collected as part of a larger study on sexual identity development and sexual health among youth in the FCS. Participants were recruited via direct email through agencies and organizations serving youth formerly in the FCS, schools of social work, Facebook groups of youth formerly in the FCS or for current foster parents, advertising in a magazine targeted to youth formerly in the FCS, and through snowball sampling. Inclusionary criteria were being between the ages of 18 and 24, having lived in an out-of-home foster care placement for at least one year between the ages of 12 and 18, and no longer being under the wardship of a public child welfare agency. Youth received a \$20 e-gift card as compensation for their time, with email addresses necessary for e-gift card collected independent of the survey answers. The author's university's Institutional Review Board approved this study.

Measures and Instruments

Sexuality-related communication. Sexuality-related communication was measured utilizing a four-point Likert-type scale in which participants indicated the degree to which they had talked about a topic with an individual/group (Never, Rarely,

Occasionally, and Often). Eleven topics were chosen for inclusion (Figure 3, page 23) based on a review of other studies, common sexual health outcome measures, and discussions with experts on sexual health. Participants ranked the amount they discussed each of the topics with six different individuals/groups, public child welfare worker, foster parents, professional service provider (therapist, teacher, advocate, etc.), member of the youth's family of origin, a formal sexual education teacher, and the youths' peers, for a total of 66 prompts. The individuals/groups were chosen to represent individuals who are most influential in youths' lives. Individuals were instructed that if they interacted with more than one person from a category, they should base their answers on the person they remembered most prominently. If an individual did not interact with a category of individual, Not Applicable was an option. Total communication with each individual was summed for analysis.

Relationship quality. Relationship quality was assessed using the eight-prompt Adolescent Patient-Provider Interaction Scale (APPIS; Woods et al., 2006), an instrument originally designed to assess the quality of youths' interactions with medical professionals. The scale assesses both the quality of the relationship and communication style using a four-point Likert-type scale. The APPIS prompts were modified to represent each of the six individuals/groups. Individuals were instructed to complete the APPIS thinking of the same individual discussed in the communication topics section. As with the communication measure, the APPIS was completed six times, with a possible range from 0-32 for each individual/group. Reliability was appropriate for all scales (α range: .90 – .95)

Sexual identity formation. The four subscales of the MoSIEC (Worthington et al., 2008) were used to evaluate sexual identity development. As noted previously, the MoSIEC was designed to evaluate four dimensions of individuals' sexual identity, Commitment (6 items; $\alpha = .85$), Exploration (8 items; $\alpha = .91$), Synthesis/Integration (5 items; $\alpha = .87$), and Sexual Orientation Identity Uncertainty (3 items; $\alpha = .72$). Items are ranked on a seven-point Likert-type scale, with subscale scores ranges varying based on number of prompts. The four dimensions of the MoSIEC are designed to be utilized independently of each other.

Sexual health. Sexual health was measured using a modified version of a multidimensional model of sexual health (Hensel & Fortenberry, 2013). Several items were modified to be gender neutral while sex-specific items were removed. The Fertility Control subscale of the original instrument, which was designed to measure adolescents' commitment to avoiding teen pregnancy was eliminated as all participants were over 18 and many at an age where having children is typical. Further, it may have been less applicable to YSM depending on the sexual activities they engaged in. One item was removed from the Sexual Anxiety subscale due to a data entry error.

The final sexual health scale consisted of 32 items dividing into eight domains. Relationship Quality (6 items), Sexual Communication (3 items), Sexual Autonomy (3 items), Condom Use Efficacy (4 items), Sexual Esteem (3 items), Sexual Anxiety (4 items), and Genital Pain (4 items) were assessed using a four-point Likert-type scale from Strongly Disagree to Strongly Agree, with possible subscale ranges varying based on number of prompts. Sexual Satisfaction consisted of five seven-point semantic differential scales designed to measure how participants viewed their sexual relationship

with their current or most recent sexual partner. Per the original authors' instructions (D. Hensel, personal communication), overall level of sexual health was calculated by converting scores on each item to z -scores and then summing the z -scores on all 35 items (possible raw score range 35-155; z -score range: -60.38 to 26.48; $\alpha = .92$).

Analysis

Hierarchical regressions were performed to compare the impact of aspects of the youths' experiences on their sexual health. One regression was performed examining the impact of sexuality-related discussions on overall level of sexual health and one was done for each MoSIEC subscale on sexual health for a total of five analyses. Regressions were performed separately for YH and YSM, allowing for comparison of standardized coefficients. Length of time in the FCS, race/ethnicity, gender identity, and relationship status were used as controls in all regressions. Length of time in the FCS was used as a continuous variable. Dummy variables were created for categorical data, with reference groups of Non-Hispanic White for race/ethnicity, Female for gender identity, and Single for relationship status. The variables entered into the second model differed based on the area of inquiry.

Differences between YH and YSM were analyzed using bivariate analysis. For nominal data chi-squares were calculated while t -tests were used for ratio data. Significance for all analyses was predetermined at $p < .05$.

Results

Participants

Two hundred and twenty-seven participants completed a confidential web-based survey exploring aspects of adverse childhood experiences, sexual education, sexual

identity development, and sexual health. Data from eight participants were removed due to being multivariate outliers, leaving a sample size of $n = 219$. Participant demographics were presented in Table 1 (page 54). Youth indicated their sexual orientation through marking one of several presented options or entering a different identity if their identity was not listed. Five youth identified with more than one sexual orientation, with two identifying as both heterosexual and another category and three as more than one sexual minority. The two youth who identified as both heterosexual and a category of sexual minority were classified as sexual minorities for analysis, leaving a total of 52 YSM and 167 YH.

Ages and Time in the Foster Care System and Situation at Exit

Youth who identified as sexual minorities spent significantly more time in the FCS, averaging 7.67 years compared to 4.93 for YH ($t = -3.55, p < .01$; Table 3). They also entered the FCS at an earlier age, 10.44 years old versus 12.18 years old ($t = 2.87, p < .01$) and exited later 18.12 years old compared to 17.11 years old ($t = -2.97, p < .01$). There were no differences between YSM and YH on their living situation upon exiting the FCS ($\chi^2 = 6.62, p = .36$).

Discussion of Sexuality-Related Topics

Contrary to hypothesis one, there were no reported differences between the two groups in the number of sexuality-related topics discussed with public child welfare workers, professional providers, or peers. Youth who identified as sexual minorities did, however, reported discussing significantly fewer topics with foster parents than YH ($\bar{x} = 8.17$ versus $10.85, t = 2.34, p < .05$; Table 3), providing partial support for hypothesis one. When all individuals/groups were considered, there was no significant difference in the

total number of sexuality-related topics discussed (YH 52.52 versus YSM \bar{x} = 50.19, t = .63, p = .53). Thus, hypothesis one was only partially supported.

Relationships with Others within the Child Welfare System and Peers

Reliability levels for the APPIS scale ranged from α = .90 to .95 (Table 3). As predicted, YSM reported significantly worse relationships with foster parents than YH (\bar{x} = 24.45 versus 31.81, t = 4.03, p < .001; Table 3). Relationships were also worse with peers (\bar{x} = 33.41 versus 30.60, t = 2.48, p < .05) and overall when all relationships were considered together (\bar{x} = 131.35 versus 149.23, t = 3.75, p < .001). Contrary to hypothesis two, no differences were found in relationships with child welfare workers, professional service providers, or members of their family of origin, so hypothesis two was only partially supported. There were no differences between YSM and YH in the number of youth who had contact with a member of their family of origin (χ^2 = .272, p = .60) nor in how many lived with foster parents at some point while in the FCS (χ^2 = .54, p = .46).

Table 3: Mean Differences Between Heterosexual and Sexual Minority Youth

	Heterosexual ^a		Sexual Minority ^b			Heterosexual ^a		Sexual Minority ^b		
	\bar{x}	SD	\bar{x}	SD		\bar{x}	SD	\bar{x}	SD	
Time in Foster Care										
Age Entering Care	12.18	3.68	10.44**	4.20	MMSH Subscale ^c	20.47	3.47	20.06	4.34	
Age Exiting Care	17.11	1.96	18.12**	2.65		10.27	1.70	9.67	2.50	
Time in Foster Care System	4.93	3.98	7.67**	5.11		10.35	1.81	9.15**	2.36	
						13.34	2.70	12.67	2.89	
Number of Sexuality-related Topics Discussed with										
Child Welfare Worker	8.19	6.68	9.25	8.251	Sexual Esteem ($\alpha = .53$)	9.90	1.69	9.56	1.89	
Foster Parent	10.85	7.13	8.17*	7.43	Sexual Anxiety ($\alpha = .67$)	12.71	2.64	10.75***	2.53	
Professional Service Provider	9.50	8.33	11.02	10.09	Genital Pain ($\alpha = .89$)	14.82	2.22	12.77***	2.66	
Member of Family of Origin	7.44	6.44	6.04	7.98	Sexual Satisfaction ($\alpha = .94$)	29.86	4.96	28.67	7.54	
Peers	16.53	6.95	15.71	7.84	Overall Sexual Health ^d ($\alpha = .92$)	2.85	16.29	-6.27**	19.97	
All Individuals/Groups	52.52	22.36	50.19	26.02						
MoSIEC Subscale ^e										
Relationship Quality ^f					Commitment ($\alpha = .85$)	30.80	5.29	27.37**	6.94	
	Child Welfare Worker ($\alpha = .94$)	30.60	8.11	29.50	8.68	Exploration ($\alpha = .91$)	33.24	10.66	37.52**	8.88
	Foster Parent ($n = 200$; $\alpha = .95$)	31.81	8.21	24.45***	10.80	Synthesis ($\alpha = .87$)	25.52	4.15	24.17	5.02
	Professional Service Provider ($n = 186$; $\alpha = .90$)	33.22	5.50	32.13	8.86	Sexual Orientation Uncertainty ($\alpha = .72$)	4.96	2.48	6.83**	4.01
Member of Family of Origin ($n = 186$; $\alpha = .94$)	22.24	9.80	21.93	10.21						
Peers ($\alpha = .92$)	33.41	6.18	30.60*	7.45						
All Relationships ($n = 111$; $\alpha = .90$)	149.23	18.74	131.35***	26.97						

^a $n = 167$; ^b $n = 52$; ^c α levels indicate values for the overall sample ($n = 219$ unless otherwise specified); ^d z -scores; * $p < .05$; ** $p < .01$; *** $p < .001$

Level of Sexual Health and Sexual Risk Behaviors

Reliability on the sexual health subscales varied significantly, with Cronbach's α levels ranging from .53 to .94, though Cronbach's α for the overall sexual health was high, $\alpha = .92$. (Table 3). Consistent with other literature documenting disparities in sexual health between YSM and YH and supporting hypothesis three, YSM had lower levels of overall sexual health (z -score $\bar{x} = 2.85$ versus -6.27 , $t = 3.00$, $p < .01$; Table 3). The three areas of significant differences were sexual autonomy ($t = 3.37$, $p < .01$), sexual anxiety ($t = 4.72$, $p < .001$), and genital pain ($t = 5.04$, $p < .001$). Youth who identified as sexual minorities reported engaging in sexual activity in exchange for money, housing, or other material goods such as drugs/alcohol at a higher rate ($\chi^2 = 14.68$, $p < .01$; Table 4), partially supporting hypothesis three. As hypothesized, YSM also reported greater incidence of sexual victimization ($\chi^2 = 16.56$, $p < .001$; Table 4). There were no statistically significant differences in experiencing an unintended pregnancy/unintentionally getting someone else pregnant nor in STI/STD incidence, contrary to hypothesis three.

Table 4: Chi-square Comparisons Between Heterosexual and Sexual Minority Youth

Sexual Outcomes	Heterosexual ^a	Sexual Minority ^b	χ^2
	% Yes	% Yes	
Experienced unintended pregnancy	43.71	15.38	0.07
Diagnosed with an STI/STD	9.58	21.15	4.92
Experienced sexual victimization	23.95	53.85	16.56***
Engaged in transactional sex	6.59	25.00	14.68**

^an = 167; ^bn = 52; * $p < .05$; ** $p < .01$; *** $p < .001$

Impact of Demographics and Sexuality-Related Discussions on Overall Sexual Health

Regression analysis indicated differences in how sexuality-related discussions impacted the sexual health of the two groups. For YH, the first model was significant ($F(4, 162) = 4.304, p < .01; R^2 = 9.6\%$; Table 5), with identifying as female being a significant predictor of lower levels of sexual health ($\beta = .241, p < .01$). The second model remained significant ($F(9, 167) = 3.516, p < .01; R^2 = 16.8\%; \Delta R^2 = 7.2\%$) with being female still predicting lower levels of sexual health ($\beta = .243, p < .01$). Within the second model, only sexuality-related communication with peers was a significant predictor ($\beta = .252, p < .01$).

Among YSM, a different pattern emerged. The first model was not significant ($F(4, 47) = 1.634, p > .05; R^2 = 12.2\%$; Table 5) nor was the second model significant ($F(9, 42) = 1.388, p > .05; R^2 = 22.9\%; \Delta R^2 = 10.7\%$). Even though the overall models were not significant, being single was a significant positive predictor of sexual health in both models (Model 1: $\beta = .331, p < .05$; Model 2: $\beta = .402, p < .05$), whereas having a larger number of sexuality-related discussions with foster parents was predictive of lower levels of sexual health ($\beta = -.334, p < .05$). For YSM, gender identity was not predictive of sexual health, nor was discussions with peers, contrary to YH.

Table 5: Results of Hierarchical Multiple Regression for Overall Sexual Health

	Heterosexual ^a		Sexual Minority ^b	
	Model 1	Model 2	Model 1	Model 2
	β	β	β	β
Length of Time in Foster System ^c	-.104	-.139	-0.009	-0.042
Race/Ethnicity ^d	.116	.086	0.008	-0.081
Gender Identity ^e	.241**	.243**	0.081	0.005
Relationship Status ^f	-.074	-.026	.331*	.402*
Child Welfare Worker Topics		.012		-0.03
Foster Parent Topics		-.124		-.334*
Professional Service Provider Topics		.055		-0.024
Family of Origin Topics		-.036		0.231
Peer Topics		.252**		0.142
<i>F</i>	4.304**	3.516***	1.634	1.388
<i>R</i> ²	.096	.168	.122	.229
ΔR^2	.096**	.072*	.122	.107

Notes: ^a*n* = 167; ^b*n* = 52; ^cin years; ^dReference Group: White; ^eReference Group: Female;

^fReference Group: Single; **p* < .05; ***p* < .01; ****p* < .001

Differences in Dimensions of Sexual Identity Development

All four MoSIEC subscales demonstrated appropriate reliability (range $\alpha = .72$ to .91; Table 3). Supporting hypothesis four and part of hypothesis five, YSM had significantly lower scores on Sexual Identity Commitment ($\bar{x} = 27.37$ versus 30.80, $t = -3.55$, $p < .01$; Table 3), higher levels of Sexual Identity Exploration ($\bar{x} = 27.37$ versus 30.80, $t = -2.89$, $p < .01$), and higher levels of Sexual Identity Uncertainty ($\bar{x} = 27.37$ versus 30.80, $t = -3.18$, $p < .01$). Contrary to part of hypothesis five, differences in Sexual Identity Synthesis/Integration were not significant ($t = 1.76$, $p = .08$), though YSM scored lower than YH.

Impact of Sexual Identity Development on Sexual Health

Sexual Identity Commitment. Supporting hypothesis six, significant differences were found regarding the impact of aspects of individuals' lives on their sexual identity commitment. For YH, the first model was significant ($F(4, 162) = 4.482, p < .01; R^2 = 10.0\%$; Table 6), as was the second model ($F(5, 161) = 15.822, p < .001; R^2 = 32.9\%; \Delta R^2 = 23.0\%$). Within the first model, both race/ethnicity and gender identity were significant predictors ($\beta = -.149, p < .05$ and $\beta = -.258, p < .01$, respectively). Within the second model, gender identity stayed significant ($\beta = -.174, p < .01$), but the impact of race/ethnicity was no longer significant. These results indicate that for YH identifying as a gender other than female has a negative impact on sexual health, as does identifying racially/ethnically as other than White. Scoring high on level of Sexual Identity Commitment was a strong predictor of positive sexual health, $\beta = .510, p < .001$.

Table 6: Results of Hierarchical Multiple Regression for MoSIEC Subscales

	Commitment Heterosexual ^a		Commitment Sexual Minority ^b		Exploration Heterosexual ^a		Exploration Sexual Minority ^b	
	Model 1	Model 2	Model 1	Model 2	Model 1	Model 2	Model 1	Model 2
Length of Time in Foster System ^c	β	β	β	β	β	β	β	β
Race/Ethnicity ^d	-.087	.053	-.038	.060	-.087	-.050	-.038	.014
Gender Identity ^e	-.149*	-.109	.173	.163	-.149*	-.126	.173	.187
Relationship Status ^f	-.258**	-.174**	.006	.100	-.258**	-.262***	.006	.160
MoSIEC Subscale	-.041	.002	-.366*	-.264	-.041	-.078	-.366*	-.180
<i>F</i>	4.482**	15.822***	1.887	2.781*	4.482**	5.393***	1.877	3.524**
<i>R</i> ²	.100	.329	.138	.232	.100	.143	.138	.277
ΔR^2	.100	.230***	.138	.094*	.100**	.044**	.138	.139**

Notes: ^a $n = 219$; ^b in years; ^c Reference Group: White; ^d Reference Group: Female; ^e Reference Group: Single; ^f $p < .05$; ** $p < .01$; *** $p < .001$

Results of Hierarchical Multiple Regression for MoSIEC Commitment Subscale^a

	Synthesis Heterosexual ^a		Synthesis Sexual Minority ^b		Sex Orient Uncert Heterosexual ^a		Sex Orient Uncert Sexual Minority ^b	
	Model 1	Model 2	Model 1	Model 2	Model 1	Model 2	Model 1	Model 2
Length of Time in Foster System ^c	β	β	β	β	β	β	β	β
Race/Ethnicity ^d	-.087	-.065	-.038	.034	-.087	-.083	-.038	-.009
Gender Identity ^e	-.149*	-.123	.173	.160	-.149*	-.158*	.173	.232
Relationship Status ^f	-.258**	-.183*	.006	.113	-.258**	-.189	.006	.102
MoSIEC Subscale	-.041	-.012	-.366*	-.172	-.041	.001	-.366*	-.380**
<i>F</i>	4.482**	10.356***	1.887	2.677*	4.482**	7.974***	1.877	2.718*
<i>R</i> ²	.100	.243	.138	.225	.100	.198	.138	.228
ΔR^2	.100**	.144***	.138	.087*	.100**	.099***	.138	.090*

Notes: ^a $n = 219$; ^b in years; ^c Reference Group: White; ^d Reference Group: Female; ^e Reference Group: Single; ^f $p < .05$; ** $p < .01$; *** $p < .001$

For YSM, the first model was not significant overall ($F(4, 47) = 1.887, p > .05; R^2 = 13.8\%$; Table 6), but relationship status was a significant predictor ($\beta = -.366, p < .05$), with being single having a positive impact on sexual health. The second model was significant ($F(5, 46) = 2.781, p < .05; R^2 = 23.2\%; \Delta R^2 = 9.40\%$), but the impact of relationship status was no longer significant. Level of Sexual Identity Commitment was a strong positive predictor of sexual health ($\beta = .358, p < .05$). Thus, while race/ethnicity was a significant predictor of sexual health for YH, it was not for YSM. Alternatively, relationship status was an important predictor for YSM but not for YH. Overall, Sexual Identity Commitment was a stronger predictor of sexual health for YH than YSM ($\beta = .510$ versus $\beta = .358$).

Sexual Identity Exploration. As with Sexual Identity Commitment, there were significant group differences for Sexual Identity Exploration (Table 6). For all analyses, model one remained the same, as the impact of the MoSIEC subscale was not yet added. The second model was a significant predictor of sexual health though to a lesser degree than for Sexual Identity Commitment ($F(5, 161) = 5.393, p < .001; R^2 = .143; \Delta R^2 = 4.4\%$). In the second model race/ethnicity was no longer a significant predictor, but gender identity remained significant ($\beta = -.26, p < .001$). Sexual Identity Exploration was a strong predictor of sexual health for YH ($\beta = .217, p < .01$), though to a less degree than Sexual Identity Commitment. Contrary to expectations and other research findings, Sexual Identity Exploration was a positive predictor of sexual health.

For YSM, the second model was significant ($F(5, 46) = 3.524, p < .05; R^2 = 27.7\%; \Delta R^2 = 13.9\%$) even though relationship status was no longer a significant predictor ($\beta = -.180, p > .10$). Contrary to YH, for YSM Sexual Identity Exploration was

a stronger predictor of sexual health ($\beta = .459, p < .01$) than Sexual Identity Commitment. Consistent with hypothesis six, the overall impact of Sexual Identity Exploration on sexual health was different between the two groups, with it having a larger impact on the overall sexual health of YSM than YH ($\beta = .459$ versus $\beta = .217$).

Sexual Identity Synthesis/Integration. Sexual Identity Synthesis/Integration followed the same pattern as the previous two subscales. For YH, the second model was predictive of sexual health ($F(5, 161) = 10.356, p < .001; R^2 = 24.3\%; \Delta R^2 = 14.4\%$; Table 6) and gender identity remained a significant predictor in the second model. Sexual Identity Synthesis/Integration was a stronger predictor of sexual health ($\beta = .389, p < .001$) than it was for Sexual Identity Exploration but had less of an impact than Sexual Identity Commitment.

The second model was also predictive of sexual health for YSM ($F(5, 46) = 2.677, p < .05; R^2 = 22.5\%; \Delta R^2 = 8.7\%$) but to a lesser degree than for Sexual Identity Commitment or Sexual Identity Exploration. As with Sexual Identity Exploration, in the second model relationship status was no longer predictive on sexual health in the second model ($\beta = -.172, p > .10$). Sexual Identity Synthesis/Integration was a stronger predictor of sexual health ($\beta = .385, p < .05$) than it was for Sexual Identity Exploration but had less of an impact than it did on Sexual Identity Commitment. Contrary to hypothesis 6, there were no apparent differences in the impact of Sexual Identity Synthesis/Integration on sexual health between YH and YSM and ($\beta = .389$ versus $\beta = .385$, respectively).

Sexual Orientation Identity Uncertainty. Contrary to hypothesis 6, there were no differences in the impact of Sexual Orientation Identity Uncertainty on sexual health between the two groups. For YH, the second model was predictive of sexual health ($F(5,$

161) = 7.974, $p < .001$; $R^2 = 19.8\%$; $\Delta R^2 = 9.9\%$; Table 6). For the first time, race/ethnicity remained a significant predictor in the second model ($\beta = -.158$, $p < .05$), with identifying as only White being predictive of better sexual health, whereas the impact of gender identity was no longer significant. Sexual Orientation Identity Uncertainty was a strong negative predictor of sexual health ($\beta = -.324$, $p < .001$). The subscale's impact on sexual health was only larger than that for Sexual Identity Exploration.

Contrary to YH, the overall impact of Sexual Orientation Identity Uncertainty was the smallest of any subscale for YSM. As with all the other subscales, the second model was predictive of sexual health ($F(5, 46) = 2.718$, $p < .05$; $R^2 = 22.5\%$; $\Delta R^2 = 8.7\%$), and as with YH, Sexual Identity Uncertainty was a strong negative predictor of overall sexual health ($\beta = -.325$, $p < .001$). Hypothesis six was not supported as there did not appear to be significant differences in the impact of Sexual Orientation Identity Uncertainty on sexual health between YH and YSM ($\beta = .324$ versus $\beta = .325$, respectively). Overall, hypothesis six was only supported for two of the four MoSIEC subscales.

Discussion

Youth who identify as sexual minorities are overrepresented in the CWS and often experience harassment and discrimination from professionals, members of foster families, and peers within the CWS. Negative experiences based on sexual orientation identity have been shown to contribute to poor psychosocial and sexual outcomes, including engaging in sexual risk behaviors, as well as incomplete sexual identity development. What had not previously been explored is the interrelationship of YSMs' experiences in the CWS, their sexual identity development, and their overall sexual

health. To further understand these relationships, the experiences of two groups of YFC, YH and YSM.

Despite the passage of 20 years since early research indicated that YSM spend more time in the CWS (Mallon, 1998; Sullivan, 1994), YSM still reported spending more time in care than YH. Further, these youth entered care earlier. Previous research has suggested many YSM enter the CWS due to conflicts with their family of origin and experience more strain in their relationships with these family members (Mallon, 2011; McCormick et al., 2016), but for the youth in this study there were no significant differences in the quality of relationship with members of their family of origin between YSM and YH nor differences in the percentage of youth who had contact with a member of their family of origin during their time in the CWS.

The reasons for these discrepancies are not clear, though it should be noted that among the youth in this study almost 50% aged out of the FCS and less than 9% returned to their family when exiting the FCS, vastly different numbers compared to 2016 national statistics in which over 50% of youth in the CWS returned to their family of origin and only 8% aged out (Children's Bureau, 2015). On average participants also ranked their relationships with members of their family of origin lower than with any other individuals/groups explored. The low quality of relationships with members of their family of origin and the low amount of reunification for all participants may have muted the differences between YSM and YH in this study.

Youth who identified as sexual minorities indicated they had significantly worse relationships with their foster parents than YH, perhaps due to negative reactions to them based on their sexual orientation. Many curricula designed to enhance foster parents'

knowledge about YSM and how to meet their unique needs have been developed in recent years (e.g., Child Welfare League of America, 2012; Fostering Transitions: A CWLA/Lambda Legal Joint Initiative, 2012; Wilber, Ryan, & Marksamer, 2006), but either through lack of usage or poor adherence to the protocols, the relationships between YSM and foster parents still remain strained. The foster parents of the youth in this study could have been harboring biases against YSM as has been indicated among foster parents in other studies (e.g., Child Development and Successful Youth Transition Committee, 2015; McCormick et al., 2016) leading to differences in how the two groups of youth are treated. On the positive side, there were no notable differences in the relationships YSM and YH had with public child welfare workers nor professional service providers, suggesting progress within professional service systems.

The lower relationship quality between YSM and foster parents also may be contributing to the lesser amount of sexuality-related discussions reported between YSM and foster parents versus YH and foster parents. Previous research has indicated that sexuality-related discussions are most impactful when there is a close relationship between the youth and adult and that discomfort in the relationship by either party may inhibit discussion (Wright, 2009a). Further, the reduced relationship quality may be affecting youths' recollection of discussions as the youth may not be fully listening to what the foster parents are saying if they do not feel a connection to the foster parents (Brandon-Friedman et al., 2017). As with relationship quality, the lack of significant differences between the amount of discussion YSM and YH had with public child welfare workers and professional service providers is promising.

Positive relationships with peers, caregivers, and other adults has been shown to be beneficial for sexual identity development among both YSM and YH (Brandon-Friedman & Kim, 2016; Pericak, 2012) and the limited relationships both YSM and YH involved with the FCS have with adults may be hindering this aspect of development. Compared to previous research using the MoSIEC (e.g., Borders et al., 2014; Reid, 2013), both groups of youth in this study scored considerably lower on Sexual Identity Commitment, and higher on both Sexual Identity Exploration and Sexual Orientation Identity Uncertainty than similarly-aged YSM and YH. This suggests that youth in the FCS are taking longer to develop their sexual identities and/or experiencing less overall sexual identity development, both of which are negative occurrences. Clearly more work needs to be done on educating FCS professionals and foster parents to better facilitate sexual identity development among youth in the FCS.

As predicted from the initial development of the MoSIEC, YSM experienced higher levels of both Sexual Identity Exploration and Sexual Orientation Uncertainty and lower levels of Sexual Identity Commitment. While these findings are not unique to the FCS, they do illustrate an opportunity. Youth involved with the FCS have many adults in their lives, including professional social service providers and foster parents with training on youth development. If these adults were trained to support YSM in the sexual identity development process, the youth might experience improved overall sexual health and increased overall health.

This could be especially impactful for YSM given they reported lower levels of sexual health than the YH. This too is consistent with most of the literature on the sexual health of YSM and represents an opportunity for improved health services. A unique

contribution of this study was the division of sexual health into discrete domains. Youth who identified as sexual minorities reported significantly more sexual anxiety and lower levels of sexual autonomy. Both of these may be related to past sexual victimization and are risk factors for future victimization. Sexual victimization experiences have been shown to be higher for YSM both in and out of the CWS (Katz-Wise & Hyde, 2012), and the YSM in this study demonstrated higher levels of two facets of concerning sexual experiences – sexual victimization and engagement in transactional sex. Fortunately, ways to discuss and address both of these topic areas are often covered in sexual education curricula, so if CWS professionals and foster parents were to address the sexual education needs of YSM using curricula explicitly designed for them, their sexual health may improve.

Limitations

Several limitations for this study should be noted. The majority of participants were recruited through internet-based means thereby missing those who do not have an online presence. Further, most of the recruitment went through agencies/service providers that work with youth formerly in the CWS or social media groups that cater to the same groups of youth. The youth who participate in such programs have made their experiences within the FCS a part of their public identity, which is only a small portion of youth formerly in the FCS. While aspects of recruitment targeted YSM, the small number who participated in the study reduced statistical power for the analyses performed. Finally, recruitment materials emphasized this study asked personal questions regarding sexual identity development and sexual history, thereby limiting the sample to those who

were comfortable enough discussing their sexual identity and their sexual history to answer questions about it.

Conclusion

This study sought to explore differences in aspects of the lives of YSM and YH in the FCS that affect their sexual identity development and sexual health. Compared to the YH who participated in this study, YSM spent more time in the foster care system, ranked their relationships with foster parents lower, discussed fewer sexuality-related topics with foster parents, had less developed sexual identities, had lower levels of sexual health, and higher engagement in transactional sex. The CWS system is designed to protect youth and assist with their positive growth and development when families of origin are unable or unwilling to do so, but YSM continue to be underserved. This study suggests a need for more comprehensive trainings for both professionals in the CWS and foster parents so they are better able to address the significant sexuality-related needs of the YSM in the CWS.

Chapter Five: Conclusion

This study sought to explore how sociosexualization experiences impact the sexual identity development of YFC and how their sexual identity development then affects their level of sexual health. The first chapter introduced the study, chapter two detailed the theoretical framework, and chapter three evaluated the whole proposed model, and chapter four explored differences in the experiences and outcomes between sexual minority and heterosexual youth formerly in the foster care system. This final chapter will summarize the problem considered, the study's overarching research questions and hypotheses, the main findings, implications of the findings, and future research suggestions. It will conclude with an overall summary of all that was included in the dissertation.

Overview of the Problem

The elevated rates of negative sexual health outcomes of YCWS have been recognized for many years, yet there remains a dearth of research exploring the mechanisms through which these negative health outcomes develop. Individual demographics, sexual orientation identity, age of entry into the foster care system, length of time in the foster care system, histories of abuse and/or neglect, trauma, level of sexual education, limited and/or strained relationships with adults, enhanced desires for belonging and intimacy among the youth, and a lack of focus on sexual health have all been suggested as contributing to sexual health concerns among this population (Brandon-Friedman et al., 2017; Geiger & Schelbe, 2014; Hornor, 2010; Robertson, 2013; Winter et al., 2016). The most commonly proposed solution to these concerns has been to provide increased levels of sexual education, preferably using curricula directly

targeted toward YFC and/or that are trauma-responsive, though other suggestions have included training foster parents and child welfare workers to address sexual topics with YFC, implementing policies mandating a focus on pregnancy prevention, reducing system-related barriers to sexual health services, increasing collaboration between service systems to reduce the dispersion of responsibility for addressing sexual health, working with foster parents to improve their relationships with the youth in their care, enhancing confidentiality related to sexual health for youth in the CWS, acknowledging and accepting rather than punishing age-appropriate sexual actions such as dating and masturbation, encouraging healthy relationship mentorship, eliminating harassment and discrimination directed to YSGM within the CWS, and extending foster care through ages 21 or later (Ahrens et al., 2015; Becker & Barth, 2000; Brandon-Friedman et al., 2017; California Child Welfare Council, 2015; Courtney et al., 2011; Power Through Choices Project, 2016; Robertson, 2013; The National Campaign to Prevent Teen and Unplanned Pregnancy, 2016; Winter et al., 2016).

While all of these suggestions may be beneficial, the research underpinning the suggestions has been fragmented, with few studies exploring more than one area. This study built upon earlier work by comparing various aspects of the sociosexualization process simultaneously, thereby allowing for determination of the differing impact of each of the areas while controlling for others. It also combined research that has demonstrated that aspects of sociosexualization impact sexual identity development (e.g., Arrington-Sanders et al., 2015; Brandon-Friedman & Kim, 2016; Dillon et al., 2011; Morgan, 2012; Pericak, 2012) with research that has indicated more advanced levels of sexual identity development have a positive impact on sexual health (e.g., Muise et al.,

2010; Parent et al., 2015; Reid, 2013; Worthington et al., 2008). In doing so, it sought to provide greater insight into the mechanisms through which YFC's sociosexualization experiences affect their sexual health, thereby allowing for identification of areas where interventions could be most effective.

Research Questions, Hypotheses, and Sample

This dissertation was explored the impact of sexual development on the sexual health of youth formerly in the foster care system. For clarity, the general research questions and hypotheses will be described first, followed by the specific questions and hypotheses from the two data-based chapters. As the second chapter was a literature review written as a primer on theories of sexual development for social work practitioners, it will not be reviewed in this section.

Overall Research Questions and Hypotheses

The original research questions and hypotheses were modified to only include YSM as there were not enough participants who identified as gender minorities for statistical analysis. The overall research questions for this study were:

- RQ1: How do sociosexual inputs affect sexual identity development among YFC?
- RQ2: What impact do aspects of YFC's sexual identity development have on their sexual health?
- RQ3: To what degree does sexual identity development mediate the relationship between sociosexual inputs and sexual health among YFC?
- RQ4: Are there differences in the relationship of sociosexual inputs, sexual identity development, and sexual health between YFC who identify as sexual minorities and YFC who identify as heterosexual?

The modified overall study research hypotheses were:

- H1: Youths' experiences of sociosexualization will impact their overall level of sexual health
- H2: Youths' levels of each of the four dimensions of sexual identity development will impact their overall level of sexual health
- H3: Youths' levels of each of the four dimensions of sexual identity development will mediate the relationship between the sociosexual inputs of sexual communication, sexual abuse history, and adverse childhood experiences and their overall level of sexual health
- H4: The quality of the relationships that YFC have with those providing the sexual communication will moderate the relationship between the sexual communication from that person and its impact on their sexual identity development
- H5: There will be differences in scores on the ACEs and severity of sexual abuse between YSM and YH
- H6: There will be differences in the levels of communication with and quality of relationships with the analyzed individuals/groups between YSM and YH
- H7: There will be differences in scores on the four dimensions of sexual identity development between YSM and YH
- H8: There will be differences in the impact of each of the four dimensions of sexual identity development on the overall sexual health of YSM and YH
- H9: There will be differences in the levels of sexual health, negative sexual health outcomes, and engagement in risky sexual behaviors between YSM and YH

Human Subjects Review

The study protocol was reviewed and approved by Indiana University's Institutional Review Board.

Sample

To evaluate the research hypotheses youth who spent more than one year in the FCS between the ages of 12 and 18 and who were currently between the ages of 18 and 24 and no longer a ward of their State were recruited through agencies serving youth formerly in the foster care system, emails to listservs established by agencies/organizations that serve youth currently or formerly in the foster care system, Facebook postings to groups that cater to youth formerly in the foster care system or to current foster parents, an advertisement in a magazine targeted to youth formerly in the foster care system, and emails to students in schools of social work across the United States. The requirement that the youth were in the foster care system for a year or more between the ages of 12 and 18 was to ensure the youth had sufficient time to experience foster care system-based sociosexualization that might not occur with shorter placements and so they would have had enough time to interact with a variety of system-based service providers. The requirement of currently being at least 18 years old and no longer a ward of the State allowed for self-consent. The upper age of 24 matches the upper age of the World Health Organization's definition of youth and also ensured the youth who participated were within an approximate age-based cohort, thereby minimizing the impact of changes in system policies relating to sexual health promotion over time. Youth received a \$20 e-gift card as compensation for their time, with email addresses necessary for e-gift card collected independent of the survey answers.

A priori sample size determination via G*Power (Faul et al., 2009) indicated a minimum required sample size of 199 participants. Complete data was collected from 227 youth, but data from eight were removed due to being multivariate outliers. Thus, the final sample used for analysis consisted of $n = 219$ participants. The demographic makeup of the sample was provided in Table 1 (page 56).

Research Questions and Hypotheses for Chapter Three: The Impact of Sociosexualization and Sexual Identity Formation on the Sexual Health of Youth Formerly in the Foster Care System

This chapter evaluated the entire proposed model, which was shown in Figure 4. It consisted of a four-block hierarchical multiple regression analysis as well as tests of moderation and mediation. The research questions for this chapter were:

- RQ1: How do YFC's histories of adverse childhood experiences and their sexuality-related discussions with others impact their sexual health?
- RQ2: What impact do aspects of YFC's sexual identity development have on their sexual health?
- RQ3: Does level of sexual identity development mediate the relationship between sociosexual inputs and sexual health among YFC?
- RQ4: Does youths' relationships with individuals/groups moderate the impact of their sexuality-related discussions with those individuals/groups on their sexual identity development?

The hypotheses were:

- H1: Individuals' demographics and history of abuse and/or neglect will all impact their sexual health

- H2: Individuals' scores on each of the four dimensions of sexual identity development will impact their sexual health
- H3: Youths' levels of each of the four dimensions of sexual identity development will mediate the relationship between the sociosexual inputs of sexual communication, sexual abuse history, and adverse childhood experiences and their overall level of sexual health
- H4: The quality of relationship the individuals have with each of the evaluated individuals/groups will moderate the impact of the levels of sexuality-related discussions on their sexual identity development

Research Questions and Hypotheses for Chapter Four: Sexual Health, Sexual Identity Development, and Sexual Education Comparisons Between Sexual Minority and Heterosexual Youth Formerly in the Foster Care System

Chapter four explored the differences in aspects of sociosexualization, sexual identity development, and sexual health between YSM and YH. Analyses consisted of *t*-test and chi-square comparisons between YSM and YH's scores on the evaluated variables as well as differences in hierarchical regression coefficients in two simplified models that evaluated levels of sexual identity development and sexual health. The research questions for this chapter were:

- RQ1: What are the differences in how often sexuality-related topics are discussed between YSM and YH in the CWS?
- RQ2: How do the adult-youth interaction experiences within the CWS differ between YSM and YH?

- RQ3: What are the differences in overall sexual health between YSM and YH in the FCS?
- RQ4: What are the differences in negative sexual health outcomes and engagement in transactional sex between YSM and YH in the FCS?
- RQ5: What are the differences in sexual identity formation between YSM and YH in the FCS?

The hypotheses were:

- H1: YSM discuss fewer sexuality-related topics with the evaluated individuals/groups than YH
- H2: YH have stronger relationships with adults within the FCS than YSM
- H3: YSM have lower levels of sexual health, have greater incidence of STIs/STDs, and have greater incidence of engaging in transactional sex than YH
- H4: YSM have higher on levels of Sexual Identity Exploration and Sexual Orientation Identity Uncertainty than YH
- H5: YSM have lower levels of Sexual Identity Commitment and Sexual Identity Synthesis/Integration than YH
- H6: Scores on the four MoSIEC subscales will have different levels of impact on overall sexual health between YSM and YH

Findings

Findings from Chapter Three: The Impact of Sociosexualization and Sexual Identity Formation on the Sexual Health of Youth Formerly in the Foster Care System

As hypothesized, various aspects of YFC's sociosexualization and their scores on the four dimensions of sexual identity development affected their overall level of sexual health. In all cases the higher number of adverse childhood experiences and/or greater severity of childhood sexual abuse the larger the negative impact on the youths' sexual health. The most impactful of the MoSIEC subscales was Sexual Identity Commitment, which had a strong positive effect on sexual health. When that subscale was considered within the regression, only the youths' scores on the ACEs and the CSAS continued to have an impact on sexual health.

The second most impactful aspect of sexual identity development was Sexual Identity Synthesis/Integration. With the Synthesis/Integration scale not only did the youths' history of adverse childhood experiences and severity of sexual abuse continue to impact sexual health, but so did sexuality-related discussions with foster parents. Contrary to predictions, discussions with foster parents negatively affected sexual health.

The Sexual Identity Exploration scale also positively affected sexual health, though its impact was the weakest of the four subscales. Scores on the ACEs and CSAS continued to have an impact, as did discussions with foster parents. While discussions with foster parents still had a negative effect, sexuality-related discussions with peers had a significant positive effect. When this subscale was considered identifying as female had

a negative impact on sexual health, whereas identifying as heterosexual had a positive impact.

The Sexual Orientation Identity Uncertainty subscale was the only one that had a negative impact on sexual health. With this subscale, higher scores on the ACEs and CSAS continued to have a negative impact, whereas sexuality-related discussions with foster parents maintained their negative impact and discussions with peers continued to have a positive impact. Sexual Orientation Identity Uncertainty ranked second in terms of overall effect on sexual health.

Mediation only occurred in a few instances. Sexual Identity Commitment mediated the relationship between sexuality-related discussions with peers and overall level of sexual health and between sexuality-related discussions with a member of the youth's family of origin and overall level of sexual health. Sexual Identity Exploration mediated the relationship between sexuality-related discussions with a public child welfare worker and overall level of sexual health and between sexuality-related discussion with a formal sexual education teacher and overall level of sexual health. There were also significant indirect effects between sexuality-related discussions with a member of the youth's family of origin and between peers and overall level of sexual health via Sexual Identity Synthesis/Integration, whereas Sexual Orientation Identity Uncertainty mediated the relationship between sexuality-related discussions with peers and overall level of sexual health. Sexual Identity Commitment and Sexual Identity Exploration both mediated the relationship between severity of sexual abuse and overall level of sexual health. Contrary to this chapter's fourth hypothesis relationship quality did

not moderate the impact of sexuality-related discussions on any dimension of sexual identity development.

Findings from Chapter Four: Sexual Health, Sexual Identity Development, and Sexual Education Comparisons between Sexual Minority and Heterosexual Youth Formerly in the Foster Care System

Significant differences between YSM and YH were found in many of the evaluated areas. Youth who identified as sexual minorities entered the FCS at earlier ages, spent longer in the FCS, and exited at older ages than YH. Contrary to hypothesis one, there were no differences between YSM and YH in the overall amount of sexuality-related discussions with public child welfare workers, professional service providers, or peers. There were, however, significant differences in the amount of sexuality-related topic discussions with foster parents, with YSM having lower levels of discussions with them than YH.

As hypothesized, there were differences in the impact of sexuality-related discussions on sexual health between YSM and YH. For YH, only discussions with peers had an impact on sexual health, with the impact being positive. Alternatively, for YSM, discussions with peers had no impact on sexual health but discussions with foster parents had a negative impact on it. Of note, identifying as female had a negative impact on sexual health for YH when only sexuality-related discussions were considered, whereas it had no effect for YSM. Further, being in a relationship had a positive effect on sexual health for YSM but not for YH.

In terms of the quality of relationships the youth had with the evaluated individuals/groups, there were no differences between YH and YSM in quality of

relationships with public child welfare workers, professional service providers, or the selected member of their family of origin. Youth who identified as sexual minorities had worse relationships with foster parents and with their peers, partially supporting hypothesis two. Hypothesis three was also only partially supported as YSM had lower levels of overall sexual health and higher levels of engagement in transactional sex, but there were no differences in STD/STI incidence or unintentional pregnancies.

As hypothesized, YSM scored lower on levels of Sexual Identity Commitment and higher on levels of Sexual Identity Exploration and Sexual Orientation Identity Uncertainty than YH, but contrary to hypothesis five there were no differences in levels of Sexual Identity Synthesis/Integration between the two groups. Sexual Identity Commitment, Sexual Identity Exploration, and Sexual Identity Synthesis/Integration all had a positive impact on overall levels of sexual health for both groups, whereas Sexual Identity Orientation Uncertainty had a negative impact. Differences were also found in the impact of various demographic variables between the groups. Contrary to the analyses when only sexuality-related discussions were considered, when only the sexual identity subscales were considered identifying as female positively affected sexual health among YH but not YSM, whereas being in a relationship negatively impacted the sexual health of YSM but not YH.

Summary of Overall Findings

An overview of the findings organized based on the revised research questions and hypotheses is shown in Tables 7a – 7e.

Table 7a: Summary of Findings

Hypothesis	Findings	Location
1. Youths' experiences of sociosexualization will impact their overall level of sexual health	1a. Youths' length of time in the foster care system had no impact on their overall level of sexual health	Chapter 3
	1b. Youths' racial/ethnic identity had no impact on their overall level of sexual health	Chapter 3
	1c. Youths' gender identity affected sexual health only within the models including Sexual Identity Exploration, with those identifying as a gender other than female having higher levels of sexual health	Chapter 3
	1d. Youths' sexual orientation identity affected sexual health only within the model including Sexual Identity Exploration	Chapter 3
	1e. Youths' current relationship status had no impact on their overall level of sexual health	Chapter 3
	1f. Increasing numbers of adverse childhood experiences negatively impacted the youths' overall level of sexual health	Chapter 3
	1g. Increasing severity of sexual abuse negatively impacted the youths' overall level of sexual health	Chapter 3
	1h. There was no impact on youths' overall level of sexual health from their sexuality-related conversations with public child welfare workers, professional service providers, members of their families of origin, nor formal sexual education teachers	Chapter 3
	1i. Youths' level of sexuality-related discussions with foster parents had a significant negative impact on their overall level of sexual health within the modeling including Sexual Identity Exploration, Sexual Identity Synthesis/Integration, and Sexual Orientation Identity Uncertainty, but not within the modeling for Sexual Identity Commitment	Chapter 3

Table 7b: Summary of Findings

Hypothesis	Findings	Location
1. Youths' experiences of sociosexualization will impact their overall level of sexual health	1j. Youths' level of sexuality-related discussions with peers had a significant positive impact on their overall level of sexual health within the modeling including Sexual Identity Exploration and Sexual Orientation Identity Uncertainty, but not within the modeling for Sexual Identity Commitment or Sexual Orientation Identity Uncertainty	Chapter 3
2. Youths' levels of each of the four dimensions of sexual identity development will impact their overall level of sexual health	2. Individuals' scores on each of the four MoSIEC scores had a significant impact on their overall level of sexual health. Sexual Identity Commitment, Sexual Identity Exploration, and Sexual Identity Synthesis/Integration all had a positive impact, whereas Sexual Orientation Identity Uncertainty had a negative impact	Chapter 3
3. Youths' levels of each of the four dimensions of sexual identity development will mediate the relationship between the sociosexual inputs of sexual communication, sexual abuse history, and adverse childhood experiences and their overall level of sexual health	3a. Sexual Identity Commitment mediated the relationships between sexuality-related discussions with peers and overall level of sexual health and between sexuality-related discussions with a member of the youths' family of origin and overall level of sexual health 3b. Sexual Identity Exploration mediated the relationship between sexuality-related discussions with a public child welfare worker and overall level of sexual health and between sexuality-related discussion with a formal sexual education teacher and overall level of sexual health	Chapter 3 Chapter 3 Chapter 3

Table 7c: Summary of Findings

Hypothesis	Findings	Location
3. Youths' levels of each of the four dimensions of sexual identity development will mediate the relationship between the sociosexual inputs of sexual communication, sexual abuse history, and adverse childhood experiences and their overall level of sexual health	<p>3c. Sexual Identity Synthesis/Integration mediated the relationship between sexuality-related discussions with a parent member of the youth's family of origin and overall level of sexual health and between sexuality-related discussion with peers and overall level of sexual health</p> <p>3d. Sexual Orientation Identity Uncertainty mediated the relationship between sexuality-related discussions with peers and overall level of sexual health</p> <p>3e. Sexual Identity Commitment mediated the relationship between severity of sexual abuse and overall level of sexual health</p> <p>3f. Sexual Identity Exploration mediated the relationship between scores on the ACEs and overall level of sexual health and severity of sexual abuse and overall level of sexual health</p>	<p>Chapter 3</p> <p>Chapter 3</p> <p>Chapter 3</p> <p>Chapter 3</p>
4. The quality of the relationships that YFC have with those providing the sexual communication will moderate the relationship between the sexual communication from that person and its impact on their sexual identity development	4. No interaction effects were found, indicating there was no moderation.	Chapter 3

Table 7d: Summary of Findings

Hypothesis	Findings	Location
5. There will be differences in scores on the ACEs and severity of sexual abuse between YSM and YH	5. Youth that identified as sexual minorities scored significantly higher on the ACEs and reported greater severity of sexual abuse than YH	Chapter 4
6. There will be differences in the levels of sexual communication with and quality of relationships with the analyzed individuals/groups between YSM and YH	6a. Youth that identified as sexual minorities engaged in significantly less sexuality-related conversations with foster parents than YH 6b. There were no differences in amount of sexuality-related conversations with public child welfare workers, professional service providers, a member of the youths' 6c. Youth that identified as sexual minorities rated their relationships with foster parents and peers significantly worse than YH 6d. Youth that identified as sexual minorities rated their relationships with foster parents and peers significantly worse than YH 6e. There were no differences in quality of relationship ratings with public child welfare workers, professional service providers, or a member of the youth's family of origin between YSM and YH 6f. There were no differences between YSM and YH in how many had lived with a foster parent when in the foster care system or in how many had interactions with a member of their family of origin while in the foster care system	Chapter 4 Chapter 4 Chapter 4 Chapter 4 Chapter 4 Chapter 4

Table 7e: Summary of Findings

Hypothesis	Findings	Location
7. There will be differences in scores on the four dimensions of sexual identity development between YSM and YH	7a. Youth that identified as sexual minorities scored lower on Sexual Identity Commitment and higher on Sexual Identity Exploration and Sexual Orientation Identity Uncertainty 7b. There were no differences between YSM and YH in their scores on Sexual Identity Synthesis/Integration	Chapter 4 Chapter 4
8. There will be differences in the impact of each of the four dimensions of sexual identity development on the overall sexual health of YSM and YH	8. There were differences in the impact of scores on Sexual Identity Commitment and Sexual Identity Exploration between YSM and YH, but no differences in the impact of scores on Sexual Identity Synthesis/Integration nor Sexual Orientation Identity Uncertainty	Chapter 4
9. There will be differences in the levels of sexual health and sexual health outcomes between YSM and YH	9a. Youth that identified as sexual minorities had significantly lower levels of sexual autonomy, higher levels of sexual anxiety, more genital pain, and lower levels of overall sexual health than YH 9b. There were no differences between YSM and YH in partner relationship quality ratings, level of sexual communication with partners, condom use efficacy, sexual esteem, or sexual satisfaction 9c. There were no differences between YSM and YH in incidence of an STI/STD or having experienced and intended pregnancy (of their own or with a sexual partner) 9d. Youth that identified as sexual minorities reported higher levels of sexual victimization and greater incidence of engagement in transactional sex than YH	Chapter 4 Chapter 4 Chapter 4 Chapter 4

Data Screening

Data collection was interrupted and new screening procedures put into place after anomalies were identified early in the data collection process. Within a few days after initial data collection commenced, it became clear responses were being falsified in order to receive the gift card. Once this concern was identified, the author and Dissertation Committee discussed the concerns and developed a method through which to screen the data to ensure the data used were from proper participants. The university's IRB was also contacted and approved of the changes to the protocol.

The following data screening steps were implemented:

1. Length of time spent to complete the survey was examined. Due to the number of questions and complexity of the survey, those surveys that were completed in less than 15 minutes were screened out.
2. Data was examined for consistency in responses.
 - a. Logic of living situation on discharge was evaluated (e.g., responses were screened out if a respondent answered that they aged at age 14)
 - b. Responses to sections on topic discussions and relationship quality were checked for consistency in selections of Not Applicable
 - c. Responses to question of sexual victimization was compared to responses to the CSAS
3. A matrix was completed for each respondent that included their current age, age of entering the foster care system, age of exiting the foster care system, current state, state in which they were in the foster care system, current relationship status, individuals the respondents marked as Not Applicable in the sexuality-

related discussions and relationship quality sections, the individual answered about in the professional service provider section, whether the individual had children, and whether or not the respondent's parents had been divorced (from the ACEs). Respondents were then emailed and asked three or four questions chosen randomly from the matrix answers. Email responses were compared to the answers from the matrix to ensure matches.

Responses screened out per steps one and two were eliminated from data analysis at that point. There was no initial follow up with these respondents and they were not issued a gift card. If the respondent later emailed to inquire about the gift card, they were provided with an explanation on why their data was screened out. They were then offered the opportunity to discuss this screening procedure in more depth if desired.

One individual contacted the author regarding not receiving a gift card. After the author explained the screening process and the reasons for that respondent's data being screened out, the respondent admitted he had been randomly selecting answers initially. As he was able to provide information about his past and it was evident he qualified for the survey, he was offered the opportunity to complete the survey a second time. He agreed to do so and his second submission was screened again. The second submission passed screening and he was issued a gift card. His second submission was included in the final analysis.

If the respondent accurately answered the questions asked, they were sent the gift card and their data marked as confirmed. If individuals did not respond to the initial email they were emailed a second time three to five days later. Respondents whose answers did not match those provided in their survey were emailed to notify them of this and with an

offer to discuss their inconsistencies if they desired. Only one respondent whose answers initially did not match stated they desired to discuss the concerns but that individual did not follow up with a phone call. They were emailed a second time regarding having a discussion but did not respond to that email. The data for those whose answers were incorrect were removed from analysis.

These screening techniques were designed to provide a conservative final sample. The complexity of the initial consistency screening and the randomizing of the questions asked to the respondents provided reasonable assurance the data used in the analysis was from proper participants. It is possible some proper respondents' data were screened out, but this was seen as a better outcome than including falsified data in the analysis.

Limitations

As with any study, several limitations are important to note. While attempts were made to recruit as large of a sample as possible, the study used a convenience sample. Primary recruitment occurred through social media groups and professional agencies/organizations that serve youth formerly in the foster system, thus youth who are not engaged with these types of entities were less likely to be reached. Additional recruitment was conducted through social media groups of current foster parents, an advertisement in a magazine marketed to youth formerly in the foster care system, and through schools of social work across the United States, but it is not known how many youths were reached in these manners.

This study was designed to explore areas that could be addressed through modifications to current programmatic or training regimens for foster parents and/or child welfare system professionals. As such, some pertinent areas of sexual socialization were

not incorporated. Sexual messaging via social and broadcast media have been shown to exert significant influences over youths' sexual development, especially for SGM youth (Arrington-Sanders et al., 2015; Baxter, 2013; Bond & Figueroa-Caballero, 2016; Craig & McInroy, 2014; Guse et al., 2012; Wright, 2009b). As these sources are not amendable to systemic change through the CWS, they were not included in this study. The impact of these sources cannot be underestimated, and their exclusion represents a limitation of this study.

Another limitation was that all analyses utilized youths' self-identified sexual orientation identity, either as a control variable or to compare groups. Sexual orientation identity is a fluid concept subject to variations over time (Mock & Eibach, 2012; Moreira, Halkitis, & Kapadia, 2015; Rosario et al., 2011), leading to some concerns about treating it as a fixed aspect of the youths' overall identity. Further, there are often differences between how youth identify their sexual orientation identity, what sexual acts they engage in, and with whom those sexual acts are enacted (Copen, Chandra, & Febo-Vazquez, 2016; Kann et al., 2016). The type of sexual actions performed has a direct impact on sexual health, regardless of the sexual orientation identity of the individuals engaging in the act. As these comparisons were based only on the youths' self-selected sexual orientation identity, there was no way to know with whom the youth interacted sexually nor the impact of possible sexual interactions with others whose gender identity does not match that to which youths' sexual orientation identity suggests they would engage sexually. At the same time, this analysis largely focused on the impact of sexual identity development, which is an intrapsychic process, making the individuals' self-identified sexual orientation identity more important than their sexual behaviors.

It must also be recognized that the study only included sociosexual inputs, aspects of sexual identity development, and aspects of sexual health as identified by the researcher and within the instruments used. While attempts were made to incorporate as many aspects of each of these variable classes as possible, they were necessarily limited to reduce the burden on survey participants. Finally, this was a retrospective, cross-sectional study, leading to concerns about retrospective recall bias and limiting the ability to make casual inferences.

Conclusion

This study sought to examine the impact of various aspects of sociosexualization and sexual identity development on the sexual health of YFC. Given that higher levels of sexual health have been linked with improved mental health, reduced substance use, better social integration, reduced level of antisocial attitudes and behaviors, protective sexual behaviors, and a decreased incidence of STIs/STDs (Hensel & Fortenberry, 2013; Hensel et al., 2016), it is essential to understand what impacts sexual health and how sexual health outcomes can be improved. This is especially true for YCWS, given that they experience significantly higher levels of negative sexual health outcomes and engage in higher levels of risky sexual behaviors than their peers not involved with the CWS (Robertson, 2013; Winter et al., 2016). Youth in the foster care system also disproportionately identify as SGMs, a population that already experiences greater amounts of negative sexual health outcomes and higher engagement in sexual risk behaviors than their peers who identify as heterosexual (Everett et al., 2014; Kann et al., 2016), further emphasizing the importance of this area of inquiry.

Data analysis identified several areas of note. Congruous with previous research findings, youths' history of adverse childhood experiences including abuse and/or neglect and the severity of their childhood sexual abuse had a consistently negative impact on their sexual health. Youths' levels of sexual identity development also affected their sexual health, further emphasizing the importance of the sexual identity development process for all youth regardless of their sexual orientation identity. Finally, depending on the area explored, different demographic variables affected sexual health in different ways highlighting the importance of context and intersectionality when examining factors that impact sexual health.

Implications

This research was designed as a vehicle to better understand the factors that affect the sexual health of YFC so targeted interventions could be developed. Contrary to expectations, sexuality-related discussions with public child welfare workers had no impact on the sexual health of youth who participated in this study. This was possibly due to the very low amount of sexuality-related discussions that occurred between the youth and their child welfare workers. Given the important role that these individuals play in the youths' lives, they could readily serve as a primary sexual educator for YFC. Enhancing their skills for speaking with the youth with whom they work about sexuality and sexual health would increase the level of discussions and, likely, the impact of those discussions.

It is also essential to note that the sexuality-related discussions the youth had with foster parents had the opposite of the intended effect, predicting lower levels of sexual health. This is particularly troubling as these are the individuals with whom the youth live

and they are likely to be very influential in the youths' lives. The reasons for this are unclear but may be related to how sexuality is discussed with the youth by their foster parents or on which topics the discussions focus (Ott & Santelli, 2007). Regardless of which it is, foster parents clearly need better education on how to engage in sexuality-related discussions with the youth in their homes so that these discussions have a positive impact on the youths' sexual health.

A part of the education provided to the foster parents and the public child welfare workers should focus on youth sexual identity development. The impact of sexual identity development on sexual health had previously been established, and this research confirmed the relationship is present among YFC. Further, this study demonstrated the importance of this aspect of youth development for both YSM and YH. Yet, few sexual education curricula focus on sexual identity development or provide participants with knowledge about the sexual identity development process. As new curricula are developed, material on the sexual identity process should be included as well as a discussion of how adults can assist with advancing the process.

As past experiences of trauma, abuse, and/or neglect will always be present within the lives of YFC, addressing the direct impact of these experiences on the youths' sexual health is of utmost importance. At least one sexual education curriculum, *Power Through Choices* (Power Through Choices Project, 2016), has been developed with the past trauma, abuse, and/or neglect experiences of YFC in mind, but it has not been subjected to rigorous evaluation at this time. Individual therapy for YFC is often mandated to be trauma-responsive, but this does not ensure a focus of the impact of those experiences on the youths' sexual choices. Further development of interventions that directly target the

impact of youths' experiences of trauma, abuse, and/or neglect on their sexual health is needed at this time.

Finally, this study further confirms that YSM in the FCS continue to fare worse than their peers who identify as heterosexual. This is an area that has received considerable attention in recent years, with a focus on training child welfare workers and foster parents to be more culturally-responsive to the unique needs of YSM. That the YSM evaluated their relationships with public child welfare workers at a level approximately equal to the YH is a promising discovery. The relationships the YSM had with foster parents continued to be significantly worse, suggesting the foster parents are either not prepared to work with these youth in a culturally-responsive manner or they continue to harbor misconceptions about and prejudices toward this population (e.g., Child Development and Successful Youth Transition Committee, 2015; Clements & Rosenwald, 2008; McCormick et al., 2016). The CWS is tasked with providing safety and security to all the youth who are engaged with it, and that YSM continue to rate their relationship with foster parents lower than YH is concerning. Further attention to how to improve the ways in which foster parents interact with YSM is needed, whether that is through enhanced education or policies designed to prevent harassment and/or discrimination toward these youth.

Future Research

Several areas were identified for future research. First, it is imperative that the content and communication style of sexuality-related conversations between YFC and foster parents be evaluated further. The reasons for the negative impact of these conversations on the youths' sexual health need to be understood so that changes can be

made. Qualitative research that specifically examines the youths' perceptions of these conversations would be beneficial, as would a direct focus on the communication style of those specific conversations. Further analysis of which topics are covered and how they are addressed would also be beneficial, given that research has shown that lecturing and/or a focus on abstinence-only can have the opposite of the intended effect (Rogers et al., 2015). It is essential to determine if these are occurring during the sexuality-related conversations between YFC and their foster parents so they can be addressed. Additional analysis could examine differences in the type of discussions and topics covered between foster parents licensed by state, private religiously-affiliated agencies, and private not religiously-affiliated agencies or between those within states that mandate abstinence-only sexual education versus those that mandate comprehensive sexual education.

The relationships between YSM and foster parents also require further analysis. Research needs to go beyond documenting the strained relationships and determine the roots of the difficulties and how to address them. Some research has begun to examine foster parent attitudes toward and beliefs about YSM, but more is needed. Possible areas for examination include differences in the ways in which YSM are treated by foster parents licensed by state, private religiously-affiliated agencies, and private not religiously-affiliated agencies; how state policies affect the ways in which foster parents interact with YSM; examination of the implementation and impact of policies designed to reduce foster parents' harassment of and/or discrimination against YSM; and what YSM find to be beneficial and/or helpful when interacting with foster parents.

Direct attention to how to facilitate the sexual identity development process of all YFC would also be beneficial. Previous research has examined how to support sexual

orientation identity development among YSM outside of the FCS, but little to no research has examined how to support YH in their identity development process. Further, given the unique sociosexualization experiences of YFC, population-specific investigations would be beneficial. Qualitative interviews with YFC focused on what they feel contributed to their sexual identity development would be an area to examine as would further quantitative explorations of what aspects of youths' lives and their interactions with others contribute to positive sexual identity development.

Finally, the relationships between trauma, abuse, and/or neglect; sexual identity development; and sexual health need further investigation. Research has consistently demonstrated the negative impact of experiences of trauma, abuse, and/or neglect on sexual health, but little attention has focused on the mechanisms through which these experiences contribute to reduced levels of sexual health. The role of sexual identity development within this process should be evaluated as well as demographics, adult-youth and/or peer relationship quality, and other aspects of youths' interactions with others. Further development and evaluation of therapeutic processes specifically designed to disrupt the connections between youths' previous experiences and their sexual decision making would also be beneficial.

Summary

By interfacing traditional theories of sexual identity development and theories of sociosexualization, this study sought to determine the interrelationships between YFC's previous experiences of trauma, abuse, and/or neglect; sexuality-related discussions with six domains of individuals/groups; relationship quality with those individuals/groups; four dimensions of sexual identity development; and sexual health. Findings indicate the

significant impact of the sexual identity development process on sexual health as well as the effects of other aspects of sociosexualization such as sexuality-related discussions with foster parents and peers and a history of trauma, abuse, and/or neglect. Substantial differences between the experiences of YSM and YH were identified, including in their relationships with foster parents, their level of sexual identity development, and their overall level of sexual health. This study has demonstrated the importance of a comprehensive examination of the sexual development process that includes both intrapsychic and social influences, as each has an important impact on youths' sexual health.

Appendix A: Instruments

1. Sexual Topics Discussed

Prompt: Please indicate the degree to which the following topics were discussed with you by the person indicated.

Scale: 1 – Never, 2 – rarely, 3 – occasionally, 4 – often

1. What a healthy relationship looks like
2. How to communicate with a sexual partner
3. The mechanics of sexual intercourse (what to do/how to do it)
4. Avoiding sexual activity / abstinence
5. Achieving sexual pleasure
6. Avoiding sexually transmitted infections/sexually transmitted diseases (STI/STDs)
7. Avoiding unplanned pregnancy
8. Use of birth control
9. Sexual violence / sexual victimization
10. Sexual orientation
11. Gender identity (transgender)

2. Aalsma et al., 2002 – Childhood Sexual Abuse Scale (CSAS; 4 items)

Scores range from 0-4 with 1 point for each yes.

Before Age 18

1. Someone tried to touch me in a sexual way against my will.
2. Someone tried to make me touch them in a sexual way against my will.
3. I believe that I have been sexually abused by someone.
4. Someone threatened to tell lies about me or hurt me unless I did something sexual with them.

3. Adverse Childhood Experiences (ACEs) Questionnaire (10 items)

Scores range from 0-10 with 1 point for each yes.

While you were growing up, during your first 18 years of life:

1. Did a parent or other adult in the household **often** ...
Swear at you, insult you, put you down, or humiliate you?
or
Act in a way that made you afraid that you might be physically hurt?
2. Did a parent or other adult in the household **often** ...
Push, grab, slap, or throw something at you?
or
Ever hit you so hard that you had marks or were injured?
3. Did an adult or person at least 5 years older than you **ever**...
Touch or fondle you or have you touch their body in a sexual way?
or
Try to or actually have oral, anal, or vaginal sex with you?
4. Did you **often** feel that ...
No one in your family loved you or thought you were important or special?
or
Your family didn't look out for each other, feel close to each other, or support each other?
5. Did you **often** feel that ...
You didn't have enough to eat, had to wear dirty clothes, and had no one to protect you?
or
Your parents were too drunk or high to take care of you or take you to the doctor if you needed it?
6. Were your parents **ever** separated or divorced?
7. Was one of your parents [your mother or stepmother]:
Often pushed, grabbed, slapped, or had something thrown at her?
or
Sometimes or often kicked, bitten, hit with a fist, or hit with something hard?
or
Ever repeatedly hit over at least a few minutes or threatened with a gun or knife?
8. Did you live with anyone who was a problem drinker or alcoholic or who used street drugs?
9. Was a household member depressed or mentally ill or did a household member attempt suicide?
10. Did a household member go to prison?

**4. Woods et al., 2006 – Adolescent Patient-Provider Interaction Scale
(APPIS; 8 items)**

Scaled 1 (strongly disagree) to 5 (strongly agree)

Note: “Provider” changed to the individual/group considered at the time.

Asked for each of 6 individuals/groups – Total 48 items

Summed for a total score ranging from 8 – 40.

1. The provider let me know that what we talked about was confidential.
2. The provider treated me with respect.
3. The provider did not listen to me. (Reverse coded)
4. I felt comfortable enough with the provider to ask the questions I needed.
5. The provider explained everything I needed to know.
6. The provider cared about me
7. There was an equal exchange of information with the provider?
8. The provider was sympathetic to me.

5. Worthington et al., 2008 – Measure of Sexual Identity Exploration and Commitment (MoSIEC; 22 items)

Scaled 0 (very uncharacteristic of me) to 6 (very characteristics of me)

Each subscale summed for a total for the subscale.

Commitment

1. I have a firm sense of what my sexual needs are.
2. I know what my preferences are for expressing myself sexually.
3. I have never clearly identified what my sexual needs are.
4. I have a clear sense of the types of sexual activities I prefer.
5. I do not know how to express myself sexually.
6. I have never clearly identified what my sexual values are.

Exploration

1. I am actively trying new ways to express myself sexually.
2. I can see myself trying new ways of expressing myself sexually in the future.
3. I am open to experiment with new types of sexual activities in the future.
4. I am actively experimenting with sexual activities that are new to me.
5. I am actively trying to learn more about my own sexual needs.
6. My sexual values will always be open to exploration.
7. I went through a period in my life when I was trying different forms of sexual expression.
8. I went through a period in my life when I was trying to determine my sexual needs.

Synthesis/Integration

1. My sexual values are consistent with all of the other aspects of my sexuality.
2. The sexual activities I prefer are compatible with all of the other aspects of my sexuality.
3. The ways I express myself sexually are consistent with all of the other aspects of my sexuality.
4. My sexual orientation is compatible with all of the other aspects of my sexuality.
5. My understanding of my sexual needs coincides with my overall sense of sexual self.

Sexual Orientation Identity Uncertainty

1. I sometimes feel uncertain about my sexual orientation.
2. My sexual orientation is not clear to me.
3. My sexual orientation is clear to me.

**6. Hensel & Fortenberry, 2013 – Multidimensional Model of Sexual Health
(35 items)**

All items summed for an overall level of sexual health.

Note: One prompt in sexual anxiety removed due to data entry error;
One prompt removed from genital pain as it referred only to a female genitalia

Relationship quality (all 4 point: strongly disagree to strongly agree)

1. I think I understand my partner [him/her] as a person
2. My partner and I [we] have a strong emotional relationship
3. My partner and I [we] enjoy spending time together
4. My partner [he/she] is a very important person in my life
5. I think I am in love with my partner [him/her]
6. I feel happy when my partner and I [we] are together

Sexual communication (all 4 point: strongly disagree to strongly agree)

1. It is easy to talk to my partner [him/her] about sex
2. It is easy to talk to my partner [him/her] about condoms
3. It is easy to talk to my partner [him/her] about birth control

Sexual autonomy (all 4 point: strongly disagree to strongly agree)

1. It's easy for me to say no if I don't want to have sex
2. Sometimes things just get out of control with my partner [him/her]
3. It's easy for my partner [him/her] to take advantage of me

Condom use efficacy (all 4 point: strongly disagree to strongly agree)

1. It will be easy to use a condom/dental dam if my partner and I [we] have sex
2. My partner [he/she] thinks condoms/dental dams are good for protection
3. My partner [he/she] thinks condoms/dental dams are easy to use
4. My partner [he/she] will have a condom/dental dam if we have sex

Fertility Control (all 4 point: strongly disagree to strongly agree)

1. My partner wants me to get pregnant
2. I want to get pregnant
3. I am committed to not getting pregnant at this time

Sexual Esteem (all 4 point: strongly disagree to strongly agree)

1. My feelings about sexuality are an important part of who I am
2. I really like my body
3. I like the ways in which I express my sexuality

Sexual anxiety (all 4 point: strongly disagree to strongly agree)

1. Sometimes in sexual situations, I feel confused about what I want to happen
2. I worry about being taken advantage of sexually
3. In sexual situations, I am comfortable and sure about what to do
4. Sometimes it is difficult for me to relax in sexual situations

Genital Pain (all 4 point: strongly disagree to strongly agree)

1. I almost always feel some pain after sexual intercourse
2. It is painful if my partner touches my genital area
3. I almost always feel some pain during sexual intercourse
4. I experience pain during everyday activities

Sexual satisfaction (all 7 point: semantic differential)

In general, how would you describe your sexual relationship with your partner?

1. Worthless to valuable
2. Very bad to very good
3. Very unpleasant to very pleasant
4. Very negative to very positive
5. Very unsatisfying to very satisfying

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doi:10.1007/s10964-008-9388-2
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- Winter, V. R., Brandon-Friedman, R. A., & Ely, G. E. (2016). Sexual health behaviors and outcomes among current and former foster youth: A review of the literature. *Children and Youth Services Review*, 64(1), 1-14. doi:10.1016/j.chilyouth.2016.02.023
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- Wright, P. J. (2009a). Father-child sexual communication in the United States: A review and synthesis. *Journal of Family Communication*, 9(4), 233-250. doi:10.1080/15267430903221880
- Wright, P. J. (2009b). Sexual socialization messages in mainstream entertainment mass media: A review and synthesis. *Sexuality & Culture*, 13(4), 181-200. doi:10.1007/s12119-009-9050-5
- Wright, P. J. (2014). Pornography and the sexual socialization of children: Current knowledge and a theoretical future. *Journal of Children and Media*, 8(3), 305-312. doi:10.1080/17482798.2014.923606
- Zimmer-Gembeck, M. J., O'Sullivan, L. F., Mastro, S., & Hewitt-Stubbs, G. (2016). Adolescent sexuality: Current directions in research, health, and risk reduction. In M. K. Holt & A. E. Grills (Eds.), *Critical issues in school-based mental health: Evidence-based research, practice, and interventions* (pp. 93-104). New York, NY: Routledge.

Curriculum Vitae

Richard A. Brandon-Friedman

EDUCATION

Indiana University School of Social Work 2013 – 2019

Doctor of Philosophy (PhD)

Individualized PhD Minor in Human Sexuality

Dissertation: *The Impact of Sexual Identity Development on the Sexual Health of Youth Formerly in the Foster Care System*

Date of Final Defense: July 27, 2018

Chair: Barbara Pierce, PhD, LCSW

Committee Members:

J. Dennis Fortenberry, MD, MS

Jeffrey Thigpen, PhD

Beth Wahler, PhD

Indiana University East 2010 – 2011

Certificate in Drug and Alcohol Counseling

Indiana University School of Social Work 2008 – 2011

Master of Social Work (MSW)

Concentrations: School Social Work

Child Welfare

Internships: Marion Community Schools (School Social Worker)

Vincent Village, Inc.

University of Notre Dame

Bachelor of Arts in Psychology (BA)

2003 – 2005

Bachelor of Architecture (B Arch.)

1999 – 2004

EMPLOYMENT

Indiana University School of Social Work 2018 – Present

Assistant Professor

Collaborating for Kids, LLC

2016 – Present

Youth and Family Therapist

Indiana University School of Social Work

Associate Faculty

2015 – 2018

Research Assistant

2014 – 2017

Indiana State University Department of Social Work Associate Faculty	2015 – 2016
Indiana University School of Medicine Leadership Education in Adolescent Health Co-Coordinator	2015 –2016
Specialized Alternatives for Families and Youth (SAFY) Youth and Family Therapist	2011 – 2013
Park Center, Inc. Case Worker II	2008 – 2010
Otis R. Bowen Center Case Manager	2006 – 2008
Madison Center, Inc. Case Manager	2005 – 2006

UNPAID POSITIONS

Gender Health Program at Riley Hospital for Children at IU Health Social Work Services Supervisor Therapist	2016 – Present
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GRANTS/FELLOWSHIPS

John H. Edwards Fellowship	2016 – 2017
Indiana Title IV-E Waiver Project	2016 – 2017
National Child Welfare Workforce Institute, Indiana Team	2014 – 2016
Leadership and Education in Adolescent Health	2014 – 2016
Indiana University Fellowship	2013 – 2014

AWARDS & CERTIFICATIONS

2017

Certificate in College Teaching	IUPUI Center for Teaching and Learning
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2016

Certificate of Excellence in Teaching	Indiana University School of Social Work
Graduate Student Elite 50	IUPUI GPSG

2015

Jerry Powers Esprit Award	Indiana University School of Social Work
Graduate Student Elite 50	IUPUI GPSG
Edie Moore Travel Scholarship	Society for Adolescent Health & Medicine

2011

Phi Alpha Honor Society in Social Work	Indiana University
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2010

William E. Quan Memorial Scholarship Indiana University School of Social Work

PEER REVIEWED PUBLICATIONS

Brandon-Friedman, R. A. (under review). *Youth sexual identity development: A guide for social workers*. Manuscript submitted for publication.

Brandon-Friedman, R. A., Kinney, M. K. (under review). It gets better, but for whom? Exploring the messaging within “It Gets Better” videos using visual sociology. Manuscript submitted for publication.

Brandon-Friedman, R. A. (2017). Deviance, power, stigma, and control: A sociological reconceptualization of sexuality within social work services. *Journal of Sociology and Social Welfare*, 64(1), 141-164.

Brandon-Friedman, R. A., & Kim, H-W. (2016). Using social support levels to predict sexual identity development among college students who identify as a sexual minority. *Journal of Gay & Lesbian Social Services*, 28(4), 292-316. doi: 10.1080/10538720.2016.1221784

Winter, V. R., **Brandon-Friedman, R. A.**, & Ely, G. E. (2016). Sexual health behaviors and outcomes among current and former foster youth: A review of the literature, *Children and Youth Services Review*, 64, 1-14. doi: 10.1016/j.childyouth.2016.02.023

Wasmuth, S., & **Brandon-Friedman, R. A.** (2016). A grounded theory of veterans’ experiences of addiction-as-occupation. *Journal of Occupational Science*, 23(1), 128-141. doi: 10.1080/14427591.2015.1070782

BOOK CHAPTERS

Snedecor, R., **Brandon-Friedman, R.A.**, Winter, V. R. (under review). Intersections between body image, sexual identity, and sexual health among transgender youth. In S. J. Dodd (Ed) *The handbook of social work and sexualities*. New York, NY: Routledge.

Brandon-Friedman, R. A., Karnoski, R., & Hall, S. F. (Forthcoming). Trans and nonbinary youth in the child welfare system. In S. K. Kattari, N. E. Walls, L. Kattari, & M. K. Kinney (Eds.) *Social work and health care with transgender and nonbinary individuals and communities*. New York, NY: Routledge.

Brandon-Friedman, R. A., Donahue, K., Waletich, B, & Warden, M. (Forthcoming). Supporting parents and family members of trans and nonbinary individuals. In S. K. Kattari, N. E. Walls, L. Kattari, & M. K. Kinney (Eds.) *Social work and health care with transgender and nonbinary individuals and communities*. New York, NY: Routledge.

Brandon-Friedman, R. A. (Forthcoming). Gender Dysphoria. In H. Armstrong (Ed.), *Encyclopedia of sex and sexuality: Understanding biology, psychology, and culture*. Santa Barbara, CA: ABC-CLIO.

- Brandon-Friedman, R. A. (Forthcoming). LGBTQ+. In H. Armstrong (Ed.), *Encyclopedia of sex and sexuality: Understanding biology, psychology, and culture*. Santa Barbara, CA: ABC-CLIO.
- Brandon-Friedman, R. A. (Forthcoming). Outing. In H. Armstrong (Ed.), *Encyclopedia of sex and sexuality: Understanding biology, psychology, and culture*. Santa Barbara, CA: ABC-CLIO.
- Brandon-Friedman, R. A. (Forthcoming). Sexual Identity. In H. Armstrong (Ed.), *Encyclopedia of sex and sexuality: Understanding biology, psychology, and culture*. Santa Barbara, CA: ABC-CLIO.
- Brandon-Friedman, R. A. (Forthcoming). *Jackie* [A case study on a youth in the foster care system who identifies as transgender]. In T. Argüello (ed.), *Case studies for social work practice with LGBTQ individuals and communities*. New York, NY: Oxford University Press.
- Brandon-Friedman, R. A., & Kinney, M. K.** (Forthcoming). Sexual and gender diverse youth in the child welfare system: Using an ecomap to manage disclosure of their sexual orientation and/or gender identity. In J. Whitman & C. Boyd (eds.), *The therapist's notebook of sexual and gender diverse clients: Homework, handouts, and activities for use in counseling, training, and psychotherapy*. New York, NY: Harrington Park Press.
- Kinney, M. K., & **Brandon-Friedman, R. A.** (Forthcoming). Exploring gender identity with a photo diary. In J. Whitman & C. Boyd (eds.), *The therapist's notebook of sexual and gender diverse clients: Homework, handouts, and activities for use in counseling, training, and psychotherapy*. New York, NY: Harrington Park Press.
- Brandon-Friedman, R. A., & Folaron G. M.** (2018). Coming out in rural America: The case of Emilio Hernandez. In: J. Riebschleger & B. J. Pierce (eds). *Rural child welfare: Stories from the field*. New York, NY: Oxford University Press.

PEER REVIEWED PRESENTATIONS

International

- Kinney, M. K. & **Brandon-Friedman, R.A.** (2018, August). *Community involvement and well-being: Implications for LGBTQ+ People of Color*. Paper presentation at the 2018 Congrès sur le travail social et les sexualités / Social Work and Sexualities Conference, Montreal, Canada.
- Brandon-Friedman, R. A. (2014, May). *A consideration of the dialectic between two epistemological understandings of sexuality and the implications for social work practice*. Paper presented at the 4th International Conference on Sociology and Social Work, Los Angeles, CA.

National

- Brandon-Friedman, R.A. (Upcoming, March 2019). *The impact of sexual identity development on the sexual health of former foster youth*. Poster presented at the 2019 Annual Meeting of the Society for Adolescent Health and Medicine, Washington, DC.
- Brandon-Friedman, R.A.**, & Kinney, M. K. (2018, November). *Community involvement and intersectionality: Improving wellbeing for LGBTQ+ People of Color*. Poster presented at the 64th Annual Program Meeting of the Council on Social Work Education, Orlando, FL.
- Brandon-Friedman, R. A. (2018, November). *Community Attitudes Toward Sex Offenders Inventory, Version 2 (CATSO-II): A pilot study*. Poster accepted for presentation at the 60th Society for the Scientific Study of Sexuality Annual Meeting, Atlanta, GA.
- Kinney, M. K., & Brandon-Friedman, R. A. (2017, May). *Non-binary Identities and Gender Expression: A PhotoVoice pilot study*. Paper accepted for presentation at the Lesbian, Gay, Bisexual, Transgender, and Queer Research Symposium: An Interdisciplinary Symposium on LGBTQ Research in the Social Sciences, Urbana-Champaign, IL.
- Brandon-Friedman, R. A.**, & Kim, H-W. (2017, January). *Using social support levels to predict sexual identity development among sexual minority college students*. Poster presented at the 21st Annual Conference of the Society for Social Work and Research, New Orleans, LA.
- Brandon-Friedman, R. A.**, Kinney, M. K., Pierce, B., & Fortenberry, J. D. (2017, January). *Former foster youth's perceptions of their acquisition of sexual health information while in foster care*. Poster presented at the 21st Annual Conference of the Society for Social Work and Research, New Orleans, LA.
- Brandon-Friedman, R. A.**, & Kinney, M. K. (2016, November). *Does it get better? Exploring "It Gets Better" videos using visual sociology*. Poster presented at the 62nd Annual Program Meeting of the Council on Social Work Education, Atlanta, GA.
- Winter, V. R., **Brandon-Friedman, R. A.**, Kattari, S. K., & McKay, K. (2016, January). *Negotiating and communicating sexuality: Multiple methodologies; Diverse inquiries* (R. A. Brandon-Friedman, Discussant). Symposium conducted at the 20th Annual Conference of the Society for Social Work and Research, Washington, DC.
- Brandon-Friedman, R. A.**, & Kim, H-W. (2015, October). *Development of a positive non-heterosexual identity: The role of social supports*. Paper presented at the 61st Annual Program Meeting of the Council on Social Work Education, Denver, CO.
- Hutcherson, A., **Brandon-Friedman, R. A.**, & Dennis, S. R. (2015, October). *Structure, deviance, and power: Enhancing social work with sociological theory*. Facilitated discussion group at the 61st Annual Program Meeting of the Council on Social Work Education, Denver, CO.

Brandon-Friedman, R. A., & Kim, H-W. (2014, October). *The contribution of perceived social supports to homosexual identity formation during early adulthood*. Paper presentation at the National Symposium on LGBTQ Research in Higher Education at Michigan State University, East Lansing, MI.

State

Brandon-Friedman, R. A., & Kinney, M. K. (October 2018). Enhancing LGBTQ+ student experiences in higher education. Workshop at the Hoosiers Out Together Conference, Indianapolis, IN.

Kinney, M. K., & **Brandon-Friedman, R. A.** (2017, March). Pronouns, PowerPoints, and policy: Affirmation of gender identity in higher education. Workshop at the Hoosiers Out Together Conference, West Lafayette, IN.

Brandon-Friedman, R. A., & Gobek, T. S. (2015, September). *Social work practice with LGBTQ-identified youth in out-of-home care*. Three-hour workshop at the Annual Conference of the National Association of Social Workers Indiana Chapter, Indianapolis, IN.

Brandon-Friedman, R. A., & Gobek, T.S. (2015, September). *Incorporating the needs of LGBTQ-identified youth into community and residential treatment*. Workshop at the Annual Conference of the Indiana Association of Resources and Child Advocacy, Indianapolis, IN.

Brandon-Friedman, R. A. (2014, September). Gay? Queer? Undefined? Incorporating Queer Theory into social work practice. Presentation at the Annual Conference of the National Association of Social Workers Indiana Chapter, Indianapolis, IN.

OTHER PRESENTATIONS

Brandon-Friedman, R. A. (2016, May). *Development of sexual health among sexual minority youth in foster care*. Oral presentation at the 2016 Leadership Education in Adolescent Health Annual Meeting, Washington, DC.

Brandon-Friedman, R. A., Kinney, M. K., Pierce, B., & Fortenberry, J. D. (2016, May). *Former foster youth's perceptions of their acquisition of sexual health information while in foster care*. Poster presentation at the 6th Annual Riley Maternal and Child Health Partners in Leadership Education Excellence Poster Session, Indianapolis, IN.

Brandon-Friedman, R. A., & Pierce, B. (2016, May). *Development of trust within an interagency partnership*. Poster presentation at the 20th Annual Ph.D. Symposium of the Indiana University School of Social Work, Indianapolis, IN.

Brandon-Friedman, R. A. (2015, May). *The impact of perceived social supports on non-heterosexual identity development during early adulthood*. Poster presentation at the 19th Annual Ph.D. Symposium of the Indiana University School of Social Work, Indianapolis, IN.

Brandon-Friedman, R. A. (2015, March). *Addressing sexuality in social work practice*. Presentation at the 15th Annual Indiana University School of Social Work Alumni Conference, Indianapolis, IN.

- Brandon-Friedman, R. A., & Dennis, S.** (2014, April). *The impact of social supports on gay, lesbian and bisexual identity formation*. Poster presentation at 18th Annual Ph.D. Symposium of the Indiana University School of Social Work, Indianapolis, IN.
- Brandon-Friedman, R. A. (2014, February). *The social work case for same-sex marriage* (R. A. Brandon-Friedman, Moderator). Discussion sponsored by the Indiana Chapter of the National Association of Social Workers and Advocates for Sexual Equality, Indianapolis, IN.

INVITED TRAINING SESSIONS

- Brandon-Friedman, R. A. (Upcoming, March 2019). Sexual health development of sexual and gender minority youth in foster care. Training session at the LGBTQ Healthcare Conference 2019, Indianapolis, IN.
- Brandon-Friedman, R. A., & Kinney, M. K.** (2019, February). *Working with LGBTQ+ individuals across the lifespan*. Five-hour training session at the NASW-Indiana 2nd Annual Conference on Serving Sexual and Gender Minority Clients, Indianapolis, IN.
- Brandon-Friedman, R. A. (2018, September). *Social work practice with youth who identify as sexual and/or gender minorities in out-of-home care*. Training session at the Annual Conference of the Indiana Association of Resources and Child Advocacy, Indianapolis, IN.
- Brandon-Friedman, R. A., & Kinney, M. K.** (2018, February). *Working with LGBTQ+ individuals across the lifespan*. Five-hour training session at the NASW-Indiana Conference on Serving Sexual and Gender Minority Clients, Indianapolis, IN.
- Brandon-Friedman, R. A., & Snedecor, R.** (2018, February). *Addressing the sexual health needs of sexual and gender minority youth*. Training session at the NASW-Indiana Conference on Serving Sexual and Gender Minority Clients, Indianapolis, IN.
- Brandon-Friedman, R. A., & Kinney, M. K.** (2017, September). *Working with LGBTQ+ individuals across the lifespan*. Five-hour training session at the National Association of Social Workers Indiana Chapter Annual Conference, Indianapolis, IN.
- Brandon-Friedman, R. A., & Kinney, M. K.** (2017, September). *Working with LGBTQ+ individuals across the lifespan*. Five-hour training session at the Annual Conference of the National Association of Social Workers Indiana Chapter, Indianapolis, IN.
- Brandon-Friedman, R. A. (2017, April). *Trauma principles for forensic scientists*. Training session at Brownsburg High School, Brownsburg, IN.
- Brandon-Friedman, R. A., & Kinney, M. K.** (2016, September). *Working with LGBTQ+ individuals across the lifespan*. Five-hour training session at the National Association of Social Workers Indiana Chapter Annual Conference, Indianapolis, IN.

- Brandon-Friedman, R. A., & Waletich, B.** (2016, September). *Working with high risk transgender populations: Minorities and youth*. Training session at the National Association of Social Workers Indiana Chapter Annual Conference, Indianapolis, IN.
- Brandon-Friedman, R. A., & Kinney, M. K.** (2016, August). *Working with LGBTQ+ individuals across the lifespan*. Six-hour training session sponsored by the Indiana State Department of Social Work, Terre Haute, IN.
- Brandon-Friedman, R. A. (2016, April). *Trauma principles for forensic scientists*. Training session at Brownsburg High School, Brownsburg, IN.
- Brandon-Friedman, R. A. (2015, April). *Trauma principles for forensic scientists*. Training session at Brownsburg High School, Brownsburg, IN.
- Brandon-Friedman, R. A. (2014, June). *Social work practice with non-heterosexual individuals in the current cultural context*. Presentation at the National Association of Social Workers Indiana Chapter Region 7 Lunch & Learn, Indianapolis, IN.
- Brandon-Friedman, R. A. (2014, May). *Implications of understanding psychological trauma for forensic science*. Training session at Brownsburg High School, Brownsburg, IN.
- Brandon-Friedman, R. A. (2013, June). *Gay at Notre Dame: The experiences of gay students*. Participant in a moderated discussion sponsored by GALA-ND/SMC, at the University of Notre Dame Alumni Reunion 2013, Notre Dame, IN.
- Brandon-Friedman, R. A. & Jeffers, A.** (2013, January). *Implementing Motivational Interviewing in the foster home*. Local training session sponsored by SAFY of Indiana, Fort Wayne, IN.
- Brandon-Friedman, R. A. (2012, November). *Contemporary mental health treatment services: Understanding MRO billable services*. Training session at the SAFY of Indiana Annual Retreat, Fort Wayne, IN.
- Brandon-Friedman, R. A. (2012, July). *Trauma-informed interactions with foster youth*. State training session sponsored by SAFY of Indiana, Fort Wayne, IN.
- Coleman, R., & **Brandon-Friedman, R. A.** (2012, May). *The effects of sexual abuse on children*. State training session sponsored by SAFY of Indiana, Fort Wayne, IN.
- Brandon-Friedman, R. A. (2012, February). *Attachment theory and its application to foster youth*. Local training session sponsored by SAFY of Indiana, Fort Wayne, IN.
- Brandon-Friedman, R. A. (2011, September). *The importance of understanding diversity and cultural competency for foster families*. Training session sponsored by SAFY of Indiana, Fort Wayne, IN.
- Brandon-Friedman, R. A., & Stocke, L.** (2010, July). *Indiana programs for homeless families*. Presentation at Vincent Village, Inc.'s Board Meeting, Fort Wayne, IN.

BOOK REVIEWS

- Schriver, J. M. (2015). *Human behavior and the social environment: Shifting paradigms in essential knowledge for social work practice* (6th ed.). Boston, MA: Pearson.

TEACHING

Indiana University School of Social Work

SWK 687	Mental Health & Addictions Practice with Groups	Fall 2018
SWK 517	Assessment in Mental Health and Addictions	Spring 2018
SWK 502	Social Work Research I	Spring 2018
SWK 600	Generalist Theory and Practice	Fall 2017
SWK 517	Assessment in Mental Health and Addictions	Summer 2017
SWK 623	Practice Research Integrative Seminar	Spring 2017
SWK 517	Assessment in Mental Health and Addictions	Spring 2017
SWK 516	Social Work Practice: Orgs, Coms., & Societies	Spring 2016
SWK 687	Mental Health & Addictions Practice with Groups	Spring 2016
SWK 502	Social Work Research I	Spring 2015

Indiana State University

SOWK 602.402	Advanced Policy in Mental Health	Fall 2015
SOWK 602.401	Advanced Policy in Healthcare	Fall 2015

FIELD INSTRUCTION

Indiana University School of Social Work

MSW Task Instructor	2014 – Present
	2011 – 2012

Liberty University

Counseling Task Instructor	2012 – 2013
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University of Saint Francis

BSW Field Instructor	2011 – 2013
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SERVICE

Peer Review Committees

CSWE Committee on Sexual Orientation & Gender Identity Award Committee	2018 – Present
Council on Social Work Education Annual Program Meeting Proposal Review	2016 – Present
National Association of Social Workers National Conference Proposal Review	2017 – Present
NASW Indiana Annual Conference Proposal Review Committee	2017 – Present

National Level

Council on Sexual Orientation and Gender Identity and Expression – Council on Social Work Education	Councilor	2017 – Present
Society of Adolescent Health & Medicine LGBTQI Special Interest Group	Comm. Chair	2016 – 2017
q-Caucus (Caucus of LGBT Faculty & Students in Social Work)	Comm. Chair	2014 – 2017

State Level

Specialized Alternatives for Families and Youth Of Indiana	State Advisory Brd	2018 – Present
NASW-IN	Member	2013 – Present
Sexual Orientation & Gender Identity Comm.	Chair	2015 – Present
GenderNexus, Inc.	President	2018 – 2019
	Vice President	2017 – 2018
	Exec. Brd Member	2014 – Present
	Treasurer	2014 – 2017

University Level

IUPUI Advancing Queer Student Educ. & Success	Mentor	2017 – Present
Outlist Mentoring Program	Mentor	2017 – Present
Social Work Diversity Committee	Member	2015 – Present
Social Work Doctoral Student Organization	Treasurer	2017 – Present
	President	2014 – 2017
IUSSW Dean's Advisory Council	Student Member	2016 – 2017
Riley GenderHealth Program Planning Committee	Member	2016 – 2017
LGBT Faculty & Staff Council	Member	2014 – Present
Leadership Education in Adolescent Health	Co-Coordinator	2015 – 2016
	Member	2014 – 2015
Social Work Ph.D. Committee	Student Rep.	2014 – 2016
LGBTQ Safe Space Curriculum Committee	Curriculum Writer	2014 – 2016

Local

Indiana Youth Group	Youth Mentor	2014 – 2017
Get Large, Get Proud, Get Back to Zero: Preventing HIV Infection in Youth 0-17	Community Member	2014 – 2016
Fort Wayne Gay-Straight Youth Alliance	Leadership Cmte	2012 – 2013

ADMINISTRATIVE

Chair – NASW-IN Conference on Serving Sexual and Gender Minority Clients	2019 2018
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PROFESSIONAL MEMBERSHIP

Society for the Scientific Study of Sexuality (SSSS)	2017 – Present
World Profession Association for Transgender Health	2016 – Present
Society for Social Work and Research (SSWR)	2015 – Present
Council on Social Work Education (CSWE)	2014 – Present
Society for Adolescent Health and Medicine (SAHM)	2014 – Present
National Association of Social Workers (NASW)	2009 – Present
Indiana Association of School Social Workers (INSSW)	2011 – 2013

PROFESSIONAL TRAINING

Training

Sexuality Educator for Youth in Foster Care

Phenomenological Research

Trauma-Focused Cognitive Behavioral Therapy

Theraplay Level I Clinician

Organization

Power Through Choices /
Institute for Child Advocacy

Institute for Heideggerian
Hermeneutics

Medical University of South
Carolina

Theraplay Institute

LICENSURE

License

Licensed Clinical Social Worker (LCSW)

Licensed Clinical Addictions Counselor (LCAC)

State

Indiana

Indiana